

10/573,931

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THE ESTIMATED COST FOR THIS REQUEST IS 558.36 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L6 ANSWER 1 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:823207 CAPLUS

DOCUMENT NUMBER: 151:221355

TITLE: An Unexpected Rearrangement That Disassembles Alkyne  
Moiety Through Formal Nitrogen Atom Insertion between  
Two Acetylenic Carbons and Related Cascade  
Transformations: New Approach to Sampangine  
Derivatives and Polycyclic Aromatic Amides

AUTHOR(S): Vasilevsky, Sergei F.; Baranov, Denis S.; Mamatyuk,  
Victor I.; Gatilov, Yury V.; Alabugin, Igor V.

CORPORATE SOURCE: Institute of Chemical Kinetics and Combustion,  
Siberian Branch of the Russian Academy of Science,  
Novosibirsk, 630090, Russia

SOURCE: Journal of Organic Chemistry (2009), 74(16), 6143-6150  
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This work analyzes multiple new reaction pathways which originate from  
intramol. reactions of activated alkynes with the appropriately positioned  
multifunctional hemiaminal moiety. A combination of exptl. substituent  
effects with Natural Bond Orbital (NBO) anal. revealed that alkyne  
polarization controls partitioning between these cascades. A particularly  
remarkable transformation leads to the formation of six new bonds at the  
two alkyne carbons due to complete disassembly of the alkyne moiety and  
formal insertion of a nitrogen atom between the two acetylenic carbons of  
the reactant. This reaction offers a new synthetic approach for the  
preparation of polycyclic aromatic amides with a number of possible  
applications in

mol. electronics. Another of the newly discovered cascades opens access  
to substituted analogs of Sampangine alkaloids which are known for their  
antifungal and antimycobacterial activity against AIDS-related  
opportunistic infection pathogens.

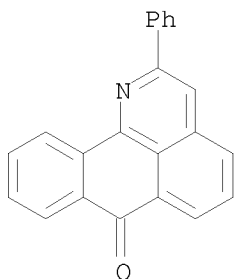
IT 155269-10-6P 1175017-81-8P 1175017-84-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(cyclization of guanidine with alkynes to give rearrangement and  
insertion polycyclic products and study of substituent effects by  
Natural Bond Orbital anal.)

RN 155269-10-6 CAPLUS

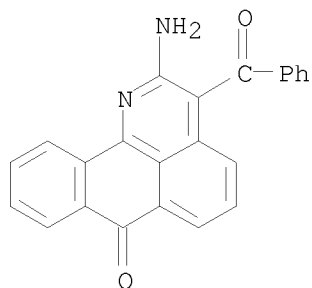
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-phenyl- (CA INDEX NAME)



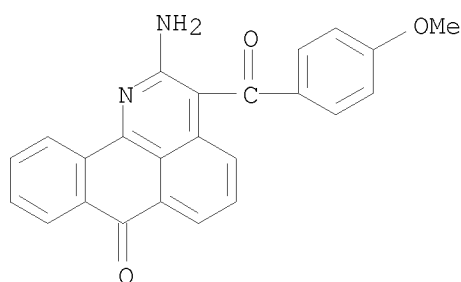
RN 1175017-81-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

10/573,931



RN 1175017-84-1 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED



REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:691954 CAPLUS

DOCUMENT NUMBER: 151:56421

TITLE: Photoreduction of Oxoisoaporphines by Amines: Laser Flash and Steady-State Photolysis, Pulse Radiolysis, and TD-DFT Studies

AUTHOR(S): De la Fuente, Julio R.; Aliaga, Christian; Poblete, Cristian; Zapata, Gerald; Jullian, Carolina; Saitz, Claudio; Canete, Alvaro; Kciuk, Gabriel;

CORPORATE SOURCE: Sobarzo-Sanchez, Eduardo; Bobrowski, Krzysztof  
Departamento de Quimica Organica y Fisicoquimica, Facultad de Ciencias Quimicas y Farmaceuticas, Universidad de Chile, Santiago, 223, Chile

SOURCE: Journal of Physical Chemistry A (2009), 113(27), 7737-7747

CODEN: JPCAFH; ISSN: 1089-5639

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Photoredn. of oxoisoaporphine (OIA) (1-aza-benzo-[de]anthracen-7-one) and its 5-methoxy (5-MeO-OIA) derivative by selected amines (two non- $\alpha$ -hydrogen-donating amines (1,4-diaza[2.2.2]-bicyclooctane (DABCO) and 2,2,6,6-tetramethylpiperidine (TMP)) and three  $\alpha$ -hydrogen-donating amines (triethylamine (TEA), diethylmethylaniline (DEMA), and dimethylethylamine (DMEA))) has been studied in deaerated neat acetonitrile solns. using laser flash and steady-state photolysis. The triplet excited states of OIA and 5-MeO-OIA are characterized by intense

absorption maxima located at  $\lambda_{\text{max}} = 450 \text{ nm}$  and lifetimes of  $34.7 \pm 0.5$  and  $44.6 \pm 0.4 \mu\text{s}$ , resp. In the presence of tertiary amines, both triplets are quenched with a rate constant that varies from the near diffusion limit ( $>10^9 \text{ M}^{-1} \text{ s}^{-1}$ ) to a rather low value ( $\approx 10^7 \text{ M}^{-1} \text{ s}^{-1}$ ) and shows the expected dependence on the reduction potential for one-electron-transfer reactions. The transient absorption spectra observed after quenching of the resp. triplet states are characterized by distinct absorption maxima located at  $\lambda_{\text{max}} = 480$  and  $490 \text{ nm}$  (for OIA and 5-MeO-OIA, resp.) and accompanied by broad shoulders in the range of  $510\text{--}560 \text{ nm}$ . They were assigned to either solvent-separated radical ion pairs and/or isolated radical anions. In the presence of  $\alpha$ -hydrogen-donating amines these species undergo protonation that leads to the formation of neutral hydrogenated radicals  $\text{A1H}\bullet/\text{A2H}\bullet$  with two possible sites of protonation, N and O atoms. Pulse radiolysis and mol. modeling together with TD-DFT calcns. were used to support the conclusions about the origin of transients.

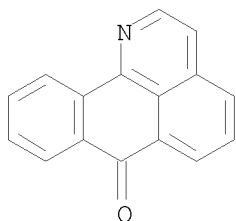
IT 1160643-00-4 1160643-01-5

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)

(photoredn. of oxoisoaporphines by amines: laser flash and steady-state photolysis, pulse radiolysis, and TD-DFT Studies)

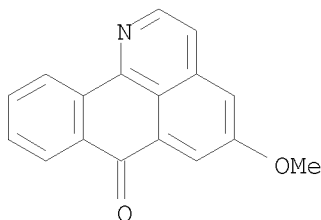
RN 1160643-00-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, radical ion(1-) (CA INDEX NAME)



RN 1160643-01-5 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy-, radical ion(1-) (CA INDEX NAME)



IT 28399-74-8 65543-67-1,  
7H-Dibenzo[de,h]quinolin-7-one

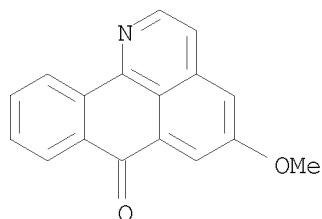
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(photoredn. of oxoisoaporphines by amines: laser flash and steady-state photolysis, pulse radiolysis, and TD-DFT Studies)

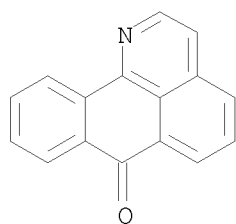
RN 28399-74-8 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)

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RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:478082 CAPLUS

DOCUMENT NUMBER: 151:57020

TITLE: Synthesis, biological evaluation and molecular modeling of oxoisoaporphine and oxoaporphine derivatives as new dual inhibitors of acetylcholinesterase/butyrylcholinesterase

AUTHOR(S): Tang, Huang; Wei, Yong-Biao; Zhang, Chi; Ning, Fang-Xian; Qiao, Wei; Huang, Shi-Liang; Ma, Lin; Huang, Zhi-Shu; Gu, Lian-Quan

CORPORATE SOURCE: School of Pharmaceutical Sciences, Sun Yat-sen University, Guangzhou, 510006, Peop. Rep. China

SOURCE: European Journal of Medicinal Chemistry (2009), 44(6), 2523-2532

CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Elsevier Masson SAS

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 151:57020

AB Aporphine alkaloids, isolated from Chinese medicinal herb, are important natural products. We recently reported that synthetic derivs. of oxoisoaporphine alkaloids exhibited high acetylcholinesterase inhibitory activity and high selectivity for AChE over BuChE. In this paper, further research results were presented. A series of novel derivs. of oxoaporphine alkaloids (4-carboxylic amide-7-oxo-7H-dibenzo[de,g]quinoline, Ar-CONH(CH<sub>2</sub>)<sub>n</sub>NR) and their quaternary methiodide salts (Ar-CONH(CH<sub>2</sub>)<sub>n</sub>N<sup>+</sup>(CH<sub>3</sub>)RI<sup>-</sup>) were designed and synthesized as acetylcholinesterase (AChE) and/or butyrylcholinesterase (BuChE) inhibitors. The AChE inhibition potency of synthetic oxoaporphine derivs. was decreased about 2-3 orders of magnitude as compared with that of oxoisoaporphine derivs. Non-competitive binding mode was found for both kinds of derivs. Mol. docking simulations on the oxoisoaporphine

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derivs. series and oxoaporphine derivs. series with AChE from *Torpedo californica* have demonstrated that the ligands bound to the dual-site of the enzyme.

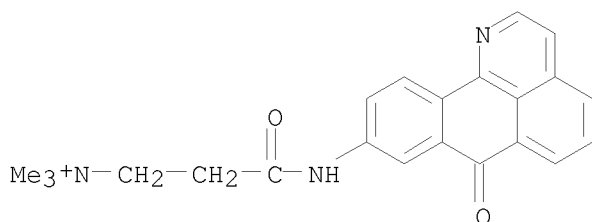
IT 946433-71-2 946433-73-4

RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study)

(synthesis, biol. evaluation and mol. modeling of oxoisoaporphine and oxoaporphine derivs. as inhibitors of acetylcholinesterase/butyrylcholinesterase)

RN 946433-71-2 CAPLUS

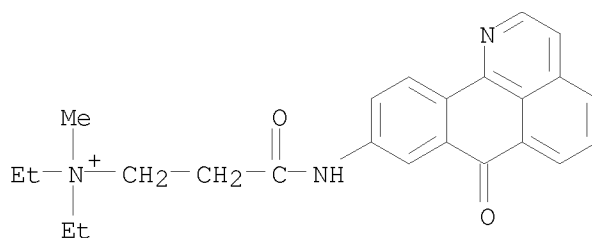
CN 1-Propanaminium, N,N,N-trimethyl-3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)



● I<sup>-</sup>

RN 946433-73-4 CAPLUS

CN 1-Propanaminium, N,N-diethyl-N-methyl-3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)



● I<sup>-</sup>

IT 949014-03-3P

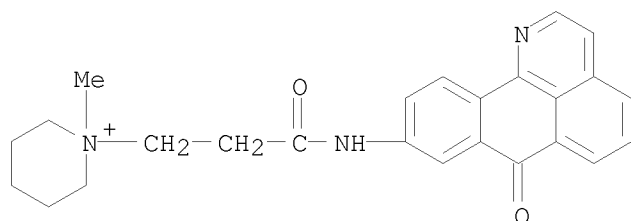
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis, biol. evaluation and mol. modeling of oxoisoaporphine and oxoaporphine derivs. as inhibitors of acetylcholinesterase/butyrylcholinesterase)

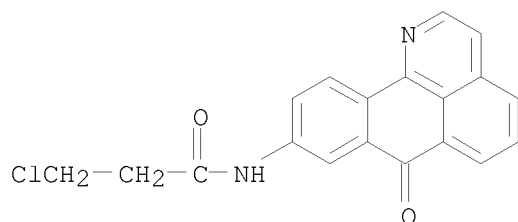
RN 949014-03-3 CAPLUS

CN Piperidinium, 1-methyl-1-[3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]propyl]-, iodide (1:1) (CA INDEX NAME)

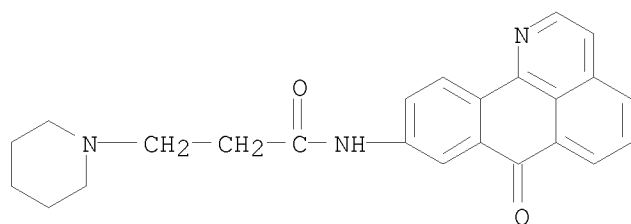
10/573,931



IT 946433-74-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis, biol. evaluation and mol. modeling of oxoisoaporphine and  
oxoaporphine derivs. as inhibitors of  
acetylcholinesterase/butyrylcholinesterase)  
RN 946433-74-5 CAPLUS  
CN Propanamide, 3-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX  
NAME)



IT 949014-02-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(synthesis, biol. evaluation and mol. modeling of oxoisoaporphine and  
oxoaporphine derivs. as inhibitors of  
acetylcholinesterase/butyrylcholinesterase)  
RN 949014-02-2 CAPLUS  
CN 1-Piperidinepropanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA  
INDEX NAME)

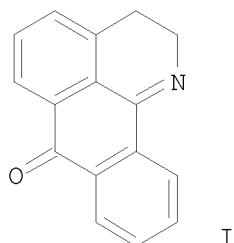


REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 2009:333709 CAPLUS  
DOCUMENT NUMBER: 150:322734  
TITLE: Use of oxoisoaporphines and the derivatives thereof as selective inhibitors of monoamino oxidase A  
INVENTOR(S): Sobarzo-Sanchez, Eduardo; Yanez Jato, Matilde; Orallo Cambeiro, Francisco; Uriarte Villares, Eugenio; Cano Rubio, Ernesto  
PATENT ASSIGNEE(S): Universidade de Santiago de Compostela, Spain  
SOURCE: PCT Int. Appl., 50pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Spanish  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009034216	A1	20090319	WO 2008-ES70114	20080612
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
ES 2315203	A1	20090316	ES 2007-2519	20070911
PRIORITY APPLN. INFO.:			ES 2007-2519	A 20070911
OTHER SOURCE(S):	MARPAT 150:322734			
GI				

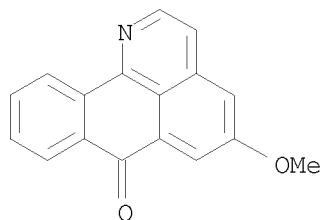


AB The invention relates to the use of compds. of general formula (I) etc. (with substituents defined in claims) as selective inhibitors of monoamino oxidase, especially inhibitors of MAO-A, for preparing a medicament for the treatment of depression disorders.

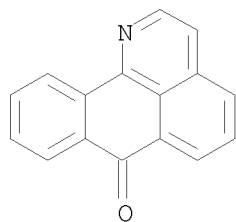
IT 28399-74-8 65543-67-1, 7H-Dibenzo[de,h]quinolin-7-one 631914-67-5 874990-03-1  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(oxoisoaporphines and derivs. as selective inhibitors of monoamino

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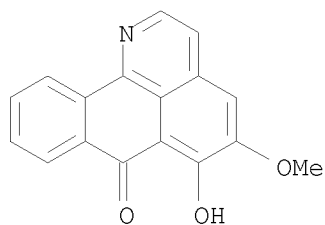
oxidase A)  
RN 28399-74-8 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)



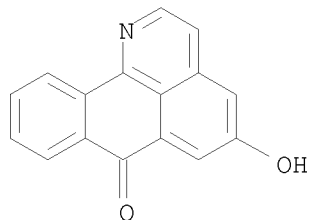
RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



RN 631914-67-5 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5-methoxy- (CA INDEX NAME)



RN 874990-03-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5-hydroxy- (CA INDEX NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



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L6 ANSWER 5 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:110695 CAPLUS

DOCUMENT NUMBER: 151:24810

TITLE: Induction of novel metabolites by P-450 inhibitors in cultured roots of *Stephania cepharantha* and *Menispermum dauricum*

AUTHOR(S): Sugimoto, Yukihiro

CORPORATE SOURCE: Graduate School of Agricultural Science, Kobe University, Rokkodai, Nada, Kobe, 657501, Japan

SOURCE: Recent Progress in Medicinal Plants (2009), Volume 24, 155-169. Editor(s): Singh, V. K. Studium Press, LLC: Houston, Tex.

CODEN: 69KLGO; ISBN: 0-9656038-5-7

DOCUMENT TYPE: Conference

LANGUAGE: English

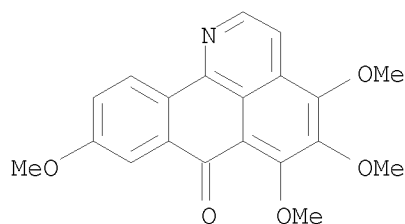
AB The effect of cytochrome P 450 inhibitors on biosynthesis of benzyloisoquinoline alkaloids, in cultured roots of *Stephania cepharantha* Hayata and *Menispermum dauricum* DC, was studied. In *S. cepharantha* most inhibitors reduced root growth and biosynthesis of the major alkaloids aromoline and berbamine. Alkaloid contents were pos. correlated with root growth ( $r = 0.82$  and  $0.78$  for aromoline and berbamine, resp.). In *M. dauricum* ancymidol and metyrapone promoted root growth, ketoconazole was inhibitory, while other inhibitors had inconsistent effects. Production of the major alkaloids dauricine and acutumine was curtailed by all inhibitors. Alkaloid contents were not related to root growth. None of the inhibitors induced accumulation of the immediate precursors of bisbenzyloisoquinoline. However, ketoconazole-treated *M. dauricum* roots accumulated tyramine, an early precursor of benzyloisoquinoline and three alkaloids with mol. masses of 353, 456 and 351. These alkaloids were identified as novel oxoisoaporphines, 2,3-dihydroauriporphine and tyraminoporphine and the known alkaloid dauriporphine, resp., by spectroscopic and chemical methods.

IT 88142-60-3, Dauriporphine

RL: BSU (Biological study, unclassified); BIOL (Biological study) (cytochrome P 450 inhibitor ketoconazole induced accumulation of dauriporphine in cultured root of *Menispermum dauricum*)

RN 88142-60-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1098723 CAPLUS

DOCUMENT NUMBER: 149:355351

TITLE: The behavior of  $M^+$  and  $[M+H]^+$  ions of some oxoisoaporphines and quinolinone analogs

AUTHOR(S): Valitutti, Giovanni; Sobarzo-Sanchez, Eduardo; Traldi, Pietro

CORPORATE SOURCE: CNR-ISTM, Corso Stati Uniti, Padua, I35127, Italy  
 SOURCE: Heterocycles (2008), 75(9), 2213-2223  
 CODEN: HTCYAM; ISSN: 0385-5414  
 PUBLISHER: Japan Institute of Heterocyclic Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

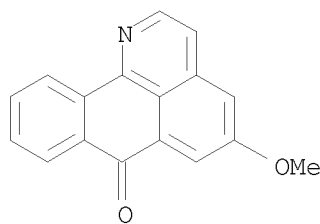
AB The mass spectrometric behavior of some oxoisoaporphines and quinolinone analogs has been studied by both electrospray and electron ionization methods. By the former approach, information can be obtained on the decomposition pattern of the compds. under investigation in acidic condition, while by the latter the behavior related to both cationic and radical character of mol. ion can be put in evidence. The collisional spectra of the protonated mols. indicate that protonation has taken place on both oxygen and nitrogen atoms. This can be justified by the fact that even if the most basic site present in the mol. is surely the N atom, in mass spectrometry conditions the protonation reactions are not governed by thermodyn. only, but kinetic effects can also play a fundamental role. Some exception to the even electron rule have been evidenced, and can be well justified by the high stability of the odd electron fragment ion. In electron ionization conditions fragmentation patterns well related to the original structures are present, allowing the characterization of isomeric compds. by the presence of specific fragmentation routes.

IT 28399-74-8 65543-67-1,  
 7H-Dibenzo[de,h]quinolin-7-one 631914-67-5  
 874990-03-1

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
 (behavior of M+ and [M+H]+ ions of some oxoisoaporphine and quinolinone analogs under electrospray and electron ionization mass-spectroscopic conditions)

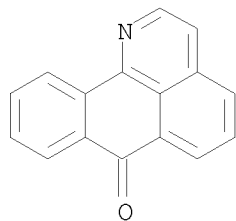
RN 28399-74-8 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)



RN 65543-67-1 CAPLUS

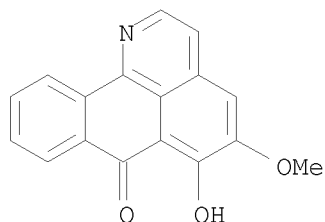
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



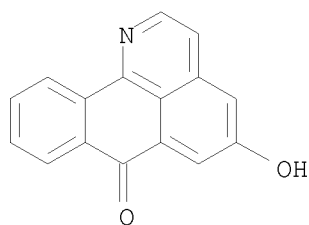
RN 631914-67-5 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5-methoxy- (CA INDEX NAME)

10/573,931

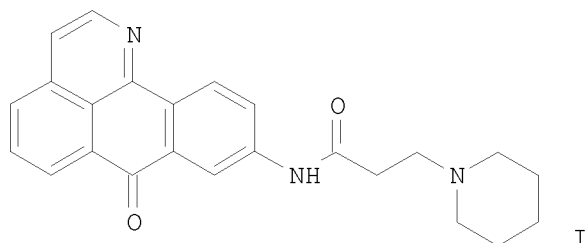


RN 874990-03-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5-hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2008:576592 CAPLUS  
DOCUMENT NUMBER: 149:153237  
TITLE: Oxoisoaporphine alkaloid derivatives: Synthesis, DNA binding affinity and cytotoxicity  
AUTHOR(S): Tang, Huang; Wang, Xiao-Dong; Wei, Yong-Biao; Huang, Shi-Liang; Huang, Zhi-Shu; Tan, Jia-Heng; An, Lin-Kun; Wu, Jian-Yong; Sun-Chi Chan, Albert; Gu, Lian-Quan  
CORPORATE SOURCE: School of Chemistry and Chemical Engineering, Sun Yat-sen University, Guangzhou, 510275, Peop. Rep. China  
SOURCE: European Journal of Medicinal Chemistry (2008), 43(5), 973-980  
CODEN: EJMCA5; ISSN: 0223-5234  
PUBLISHER: Elsevier Masson SAS  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 149:153237  
GI



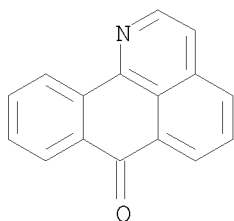
AB A series of novel oxoisoaporphine alkaloid derivs., 9-aminoalkanamido-1-azabenzanthrone (general formula Ar-NHCO(CH<sub>2</sub>)<sub>n</sub>NR<sub>2</sub>, Ar = 1-azabenzanthrone, n = 1, 2 or 3), had been synthesized. Compared with 1-azabenzanthrone, the derivs. had significantly higher DNA binding affinity with calf thymus DNA, and higher potent cytotoxicity against different tumor cell lines. The cytotoxicity and the structure-activity relationship of the prepared compds. were studied. The derivs. with two methylene groups (n = 2), and piperidine or ethanolamine functional group in the side chain, e.g. I, exhibited highest DNA binding affinity and cytotoxicity.

IT 65543-67-1P, 7H-Dibenzo[de,h]quinolin-7-one  
131023-54-6P

RL: PAC (Pharmacological activity); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis, DNA binding affinity and antitumor activity of oxoisoaporphine alkaloid derivs.)

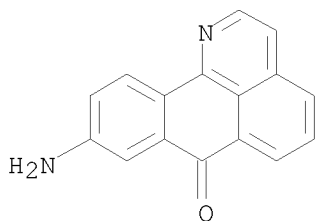
RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



RN 131023-54-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 9-amino- (CA INDEX NAME)



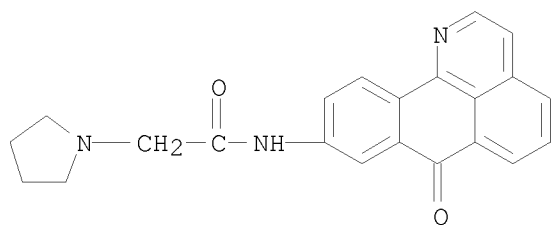
IT 946433-66-5P 946433-76-7P 946433-77-8P  
946433-78-9P 946433-79-0P 946433-80-3P  
946433-81-4P 946433-82-5P 946433-83-6P  
949014-02-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(synthesis, DNA binding affinity and antitumor activity of oxoisoaporphine alkaloid derivs.)

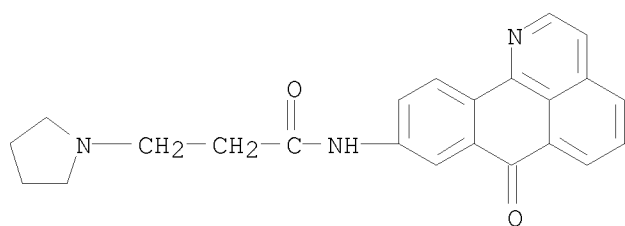
RN 946433-66-5 CAPLUS

CN 1-Pyrrolidineacetamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

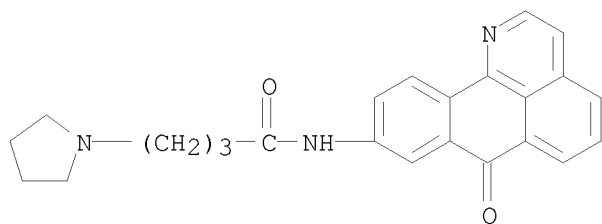
10/573,931



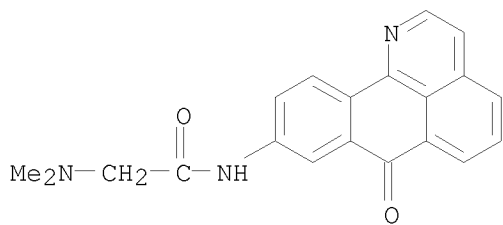
RN 946433-76-7 CAPLUS  
CN 1-Pyrrolidinepropanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA  
INDEX NAME)



RN 946433-77-8 CAPLUS  
CN 1-Pyrrolidinebutanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA  
INDEX NAME)

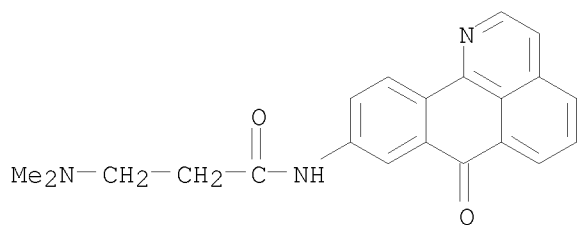


RN 946433-78-9 CAPLUS  
CN Acetamide, 2-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA  
INDEX NAME)



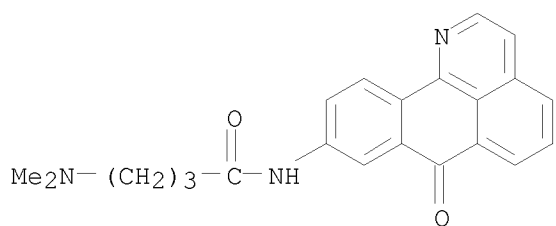
RN 946433-79-0 CAPLUS  
CN Propanamide, 3-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)

10/573,931



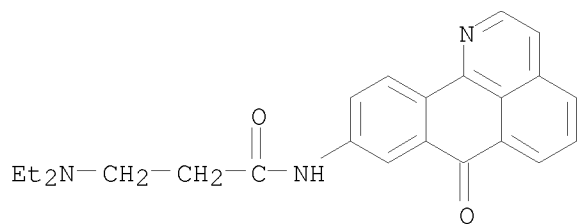
RN 946433-80-3 CAPLUS

CN Butanamide, 4-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



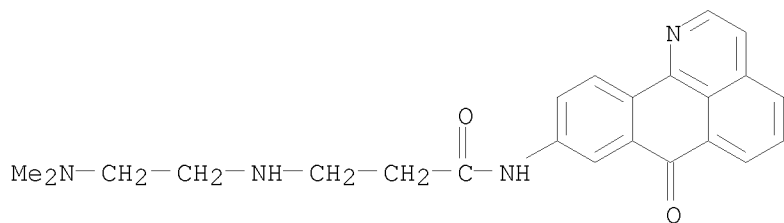
RN 946433-81-4 CAPLUS

CN Propanamide, 3-(diethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



RN 946433-82-5 CAPLUS

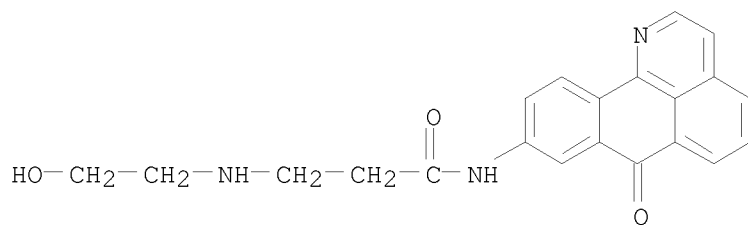
CN Propanamide, 3-[[2-(dimethylamino)ethyl]amino]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



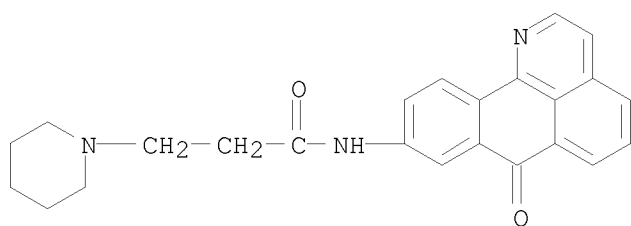
RN 946433-83-6 CAPLUS

CN Propanamide, 3-[(2-hydroxyethyl)amino]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

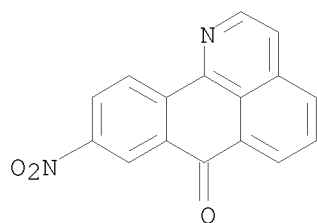
10/573,931



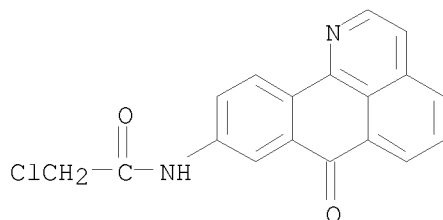
RN 949014-02-2 CAPLUS  
CN 1-Piperidinepropanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



IT 131023-51-3P 946433-65-4P 946433-74-5P  
946433-75-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis, DNA binding affinity and antitumor activity of oxoisoaporphine alkaloid derivs.)  
RN 131023-51-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 9-nitro- (CA INDEX NAME)

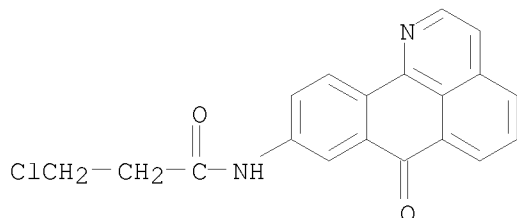


RN 946433-65-4 CAPLUS  
CN Acetamide, 2-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

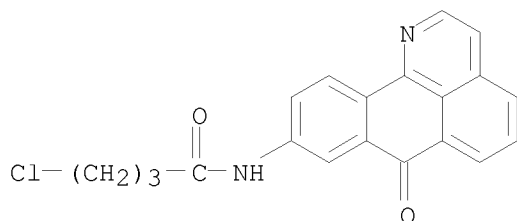


10/573,931

RN 946433-74-5 CAPLUS  
CN Propanamide, 3-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



RN 946433-75-6 CAPLUS  
CN Butanamide, 4-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)  
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:274080 CAPLUS

DOCUMENT NUMBER: 149:327460

TITLE: Biological activities of oxoisoaporphines isolated from *Menispermum dauricum* root cultures

AUTHOR(S): Babiker, Hind A. A.; Nakajima, Hiromitsu; Inanaga, Shinobu; Sugimoto, Yukihiro

CORPORATE SOURCE: Arid Land Research Centre, Tottori University, Tottori, 680-0001, Japan

SOURCE: Recent Progress in Medicinal Plants (2004), Volume 4, 163-173. Editor(s): Govil, J. N.; Kumar, P. Ananda; Singh, V. K. Studium Press, LLC: Houston, Tex. CODEN: 69KLGO; ISBN: 0-9656038-5-7

DOCUMENT TYPE: Conference

LANGUAGE: English

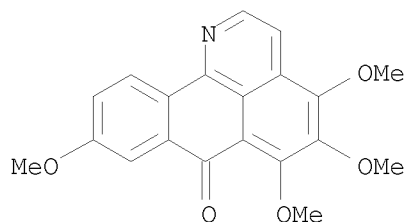
AB The effects of seven isoquinoline alkaloids, isolated from *M. dauricum* root cultures, on melanin biosynthesis by the fungus *Pyricularia oryzae* IFO 31177, and on seedling growth of rice (*Oryza sativa* L. cv. Yamahikari) and lettuce (*Lactuca sativa* L. cv. Kingcisco) were investigated. Three oxoisoaporphine alkaloids, namely, 2,3-dihydrodauriporphine, tyraminoporphine and dauriporphine, exhibited inhibitory effects on melanin production of the fungus. The same alkaloids also displayed a contrasting effect on the root growth of rice and lettuce. On the average the length of rice roots was reduced by 53-91%, while that of lettuce was enhanced by 12-95% relative to the control. However, a less effect was



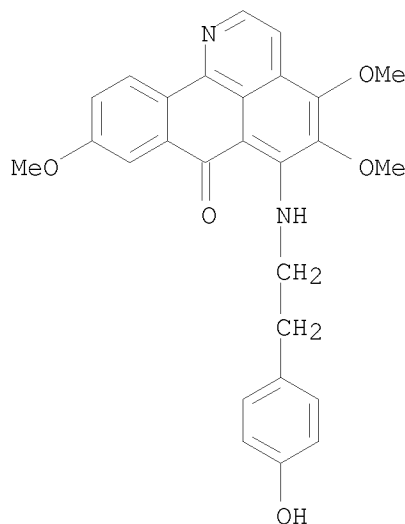
10/573,931

obtained on the shoot growth of both crops.

IT 88142-60-3, Dauriporphine 259682-67-2  
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); BIOL (Biological study); OCCU (Occurrence)  
(biol. activities of oxoisoaporphines isolated from Menispermum dauricum root cultures)  
RN 88142-60-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)



RN 259682-67-2 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-[[2-(4-hydroxyphenyl)ethyl]amino]-4,5,9-trimethoxy- (CA INDEX NAME)



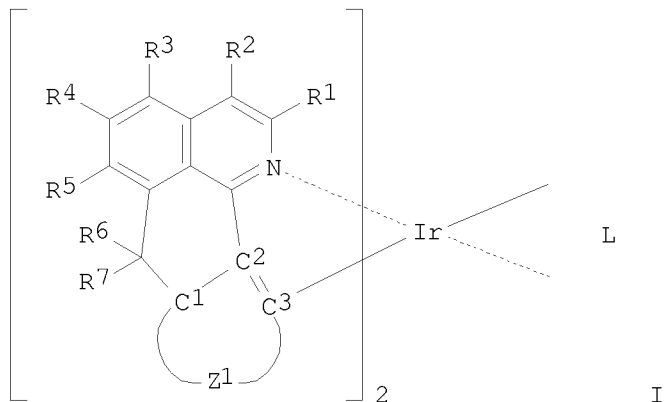
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2007:1109465 CAPLUS  
DOCUMENT NUMBER: 147:436329  
TITLE: Luminescent polymer for organic electroluminescent device and display  
INVENTOR(S): Otsubo, Akihiro; Takahashi, Yoshiaki  
PATENT ASSIGNEE(S): Showa Denko K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 28pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1

10/573,931

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007254540	A	20071004	JP 2006-78971	20060322
PRIORITY APPLN. INFO.: GI			JP 2006-78971	20060322

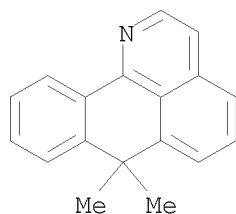


AB The invention relates to a luminescent polymer for an organic electroluminescent device and display, comprising an iridium complex structural unit represented by [R1-7 = H, halo, nitro, cyano, -OH, -SX1, -OCOX2, -COOX3, -SiX4X5X6, -NH, -NHX7, -NX8X9 [X1-9 = C1-22 alkyl, C6-21 aryl, C2-20 heteroaryl, and C7-21 aralkyl], C1-10 alkoxy, C1-22 alkyl, etc.; Z1 = atoms to form 5 or 6 member ring with C1-3; and L = bidentate monoanion containing polymerizable group].

IT 850040-28-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(luminescent polymer for organic electroluminescent device and display)

RN 850040-28-7 CAPLUS

CN 7H-Dibenzo[de,h]quinoline, 7,7-dimethyl- (CA INDEX NAME)



L6 ANSWER 10 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:962928 CAPLUS

DOCUMENT NUMBER: 147:343958

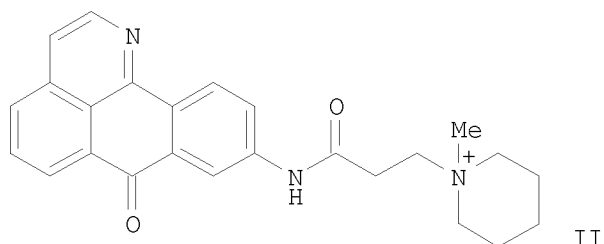
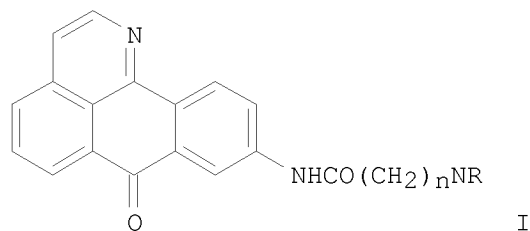
TITLE: Preparation of 1-azabenzanthrone derivatives as acetylcholinesterase inhibitors

INVENTOR(S): Gu, Lianquan; Tang, Huang; Huang, Zhishu; Wei,

10/573,931

PATENT ASSIGNEE(S): Yongbiao; Ning, Fangxian; Huang, Shiliang  
SOURCE: Sun Yat-Sen University, Peop. Rep. China  
Faming Zhuanli Shenqing Gongkai Shuomingshu, 24pp.  
CODEN: CNXXEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 101020659	A	20070822	CN 2007-10027048	20070302
PRIORITY APPLN. INFO.:			CN 2007-10027048	20070302
OTHER SOURCE(S):			CASREACT 147:343958; MARPAT 147:343958	
GI				



AB The title 1-azabenzanthrone derivs. I [wherein n = 1-5; NR = NH(CH<sub>2</sub>)<sub>2</sub>NMe<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>OH, NHC(=O)Ph, N+Me<sub>3</sub>, etc.] were prepared as selective inhibitors of acetylcholinesterase (AChE) for treatment of Alzheimer disease, dementia, glaucoma, or myasthenia gravis (no data). For example, II•I- was prepared in a multi-step synthesis. II•I- showed inhibitory activity with IC<sub>50</sub> of 0.48 nM against AChE.

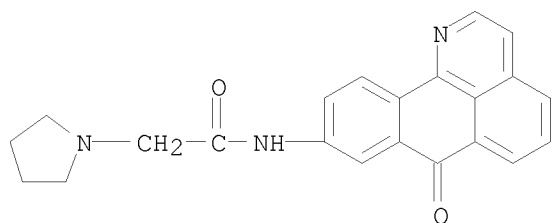
IT 946433-66-5P 946433-76-7P 946433-77-8P  
946433-78-9P 946433-79-0P 946433-80-3P  
946433-81-4P 949014-02-2P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(drug candidate; preparation of 1-azabenzanthrone derivs. as acetylcholinesterase inhibitors)

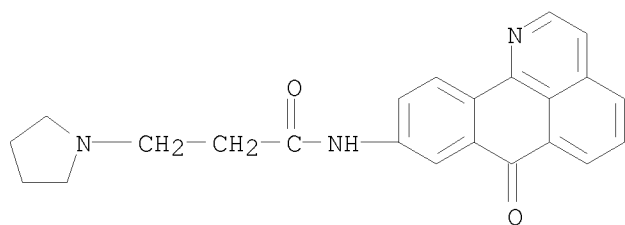
RN 946433-66-5 CAPLUS

CN 1-Pyrrolidineacetamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

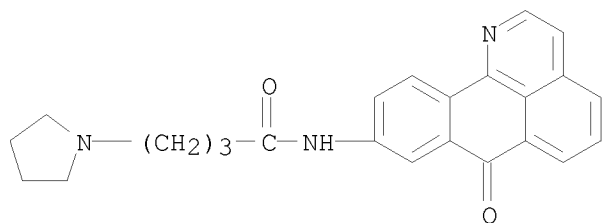
10/573,931



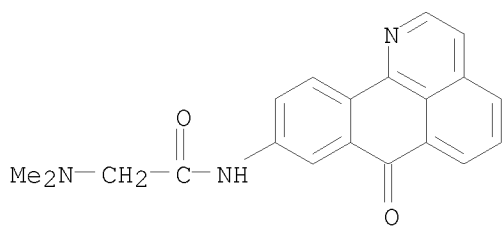
RN 946433-76-7 CAPLUS  
CN 1-Pyrrolidinepropanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



RN 946433-77-8 CAPLUS  
CN 1-Pyrrolidinebutanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

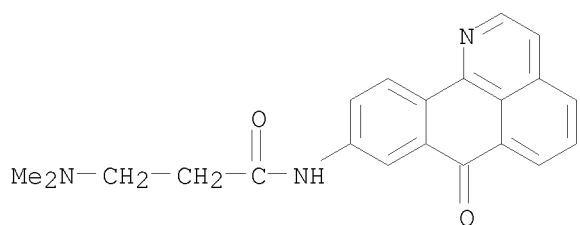


RN 946433-78-9 CAPLUS  
CN Acetamide, 2-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



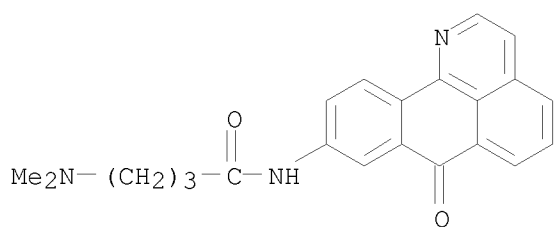
RN 946433-79-0 CAPLUS  
CN Propanamide, 3-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

10/573,931



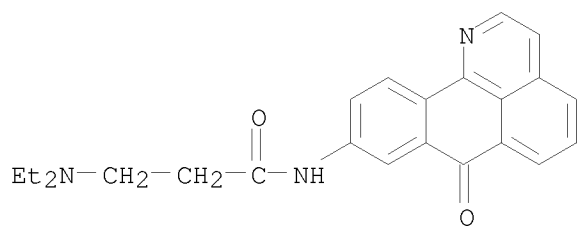
RN 946433-80-3 CAPLUS

CN Butanamide, 4-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



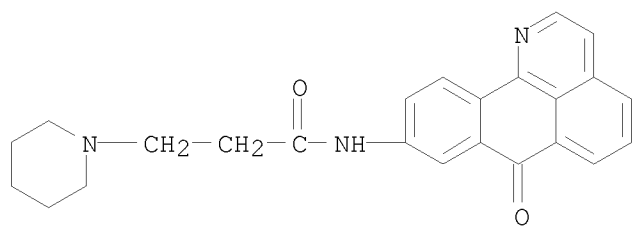
RN 946433-81-4 CAPLUS

CN Propanamide, 3-(diethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



RN 949014-02-2 CAPLUS

CN 1-Piperidinepropanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA  
INDEX NAME)



IT	946433-67-6P	946433-68-7P	946433-69-8P
	946433-70-1P	946433-71-2P	946433-72-3P
	946433-73-4P	946433-82-5P	946433-83-6P
	949014-03-3P	949014-04-4P	949014-05-5P

10/573,931

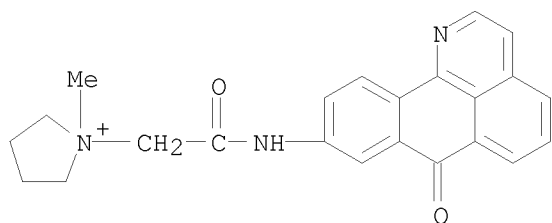
949014-07-7P      949014-09-9P      949014-11-3P  
949014-13-5P      949014-15-7P      949014-17-9P  
949014-19-1P      949014-21-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of 1-azabenzanthrone derivs. as acetylcholinesterase inhibitors)

RN 946433-67-6 CAPLUS

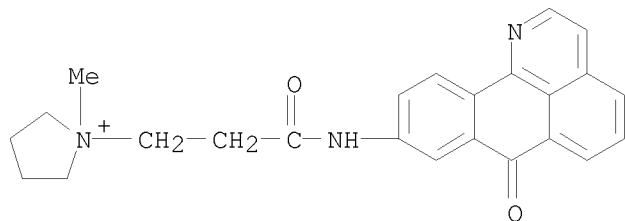
CN Pyrrolidinium, 1-methyl-1-[2-oxo-2-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]ethyl]-, iodide (1:1) (CA INDEX NAME)



● I<sup>-</sup>

RN 946433-68-7 CAPLUS

CN Pyrrolidinium, 1-methyl-1-[3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]propyl]-, iodide (1:1) (CA INDEX NAME)

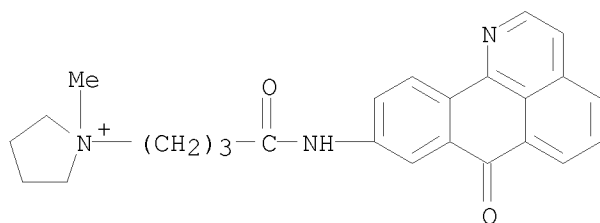


● I<sup>-</sup>

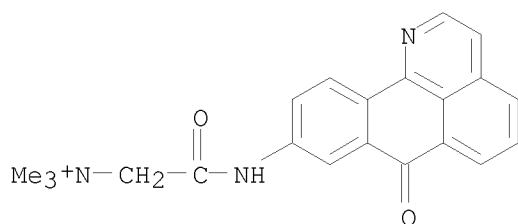
RN 946433-69-8 CAPLUS

CN Pyrrolidinium, 1-methyl-1-[4-oxo-4-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]butyl]-, iodide (1:1) (CA INDEX NAME)

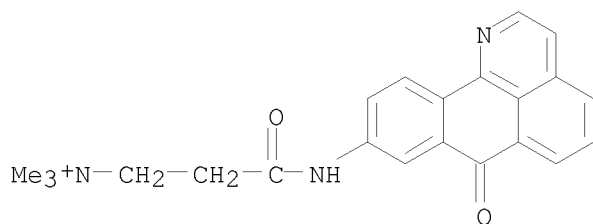
10/573,931



RN 946433-70-1 CAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-oxo-2-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)

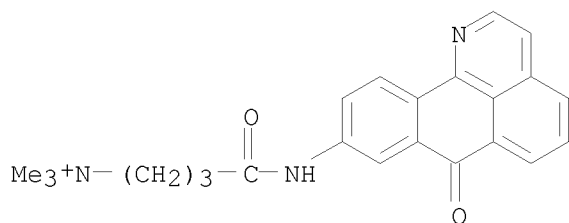


RN 946433-71-2 CAPLUS  
CN 1-Propanaminium, N,N,N-trimethyl-3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)



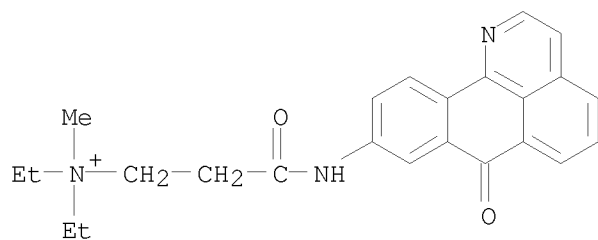
RN 946433-72-3 CAPLUS  
CN 1-Butanaminium, N,N,N-trimethyl-4-oxo-4-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)

10/573,931



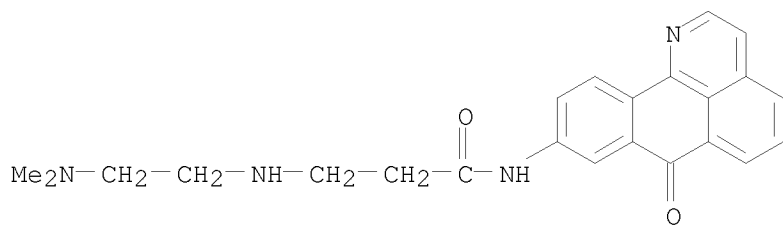
RN 946433-73-4 CAPLUS

CN 1-Propanaminium, N,N-diethyl-N-methyl-3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)



RN 946433-82-5 CAPLUS

CN Propanamide, 3-[[2-(dimethylamino)ethyl]amino]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

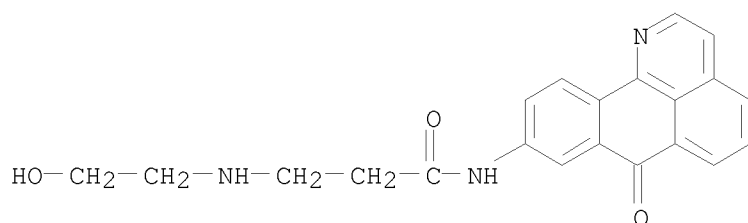


RN 946433-83-6 CAPLUS

CN Propanamide, 3-[(2-hydroxyethyl)amino]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

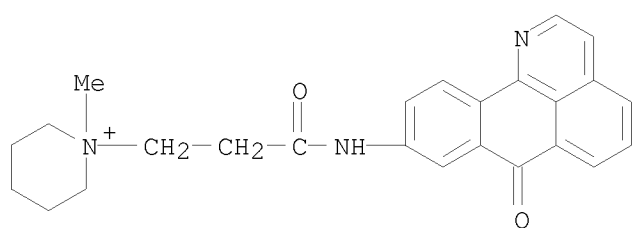


10/573,931



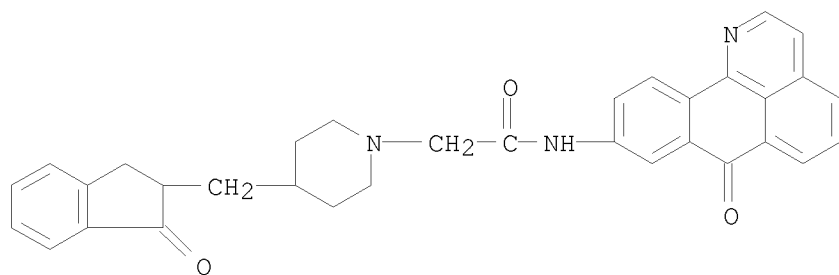
RN 949014-03-3 CAPLUS

CN Piperidinium, 1-methyl-1-[3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]propyl]-, iodide (1:1) (CA INDEX NAME)



RN 949014-04-4 CAPLUS

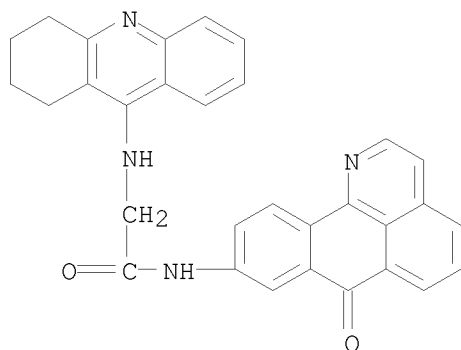
CN 1-Piperidineacetamide, 4-[(2,3-dihydro-1-oxo-1H-inden-2-yl)methyl]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



RN 949014-05-5 CAPLUS

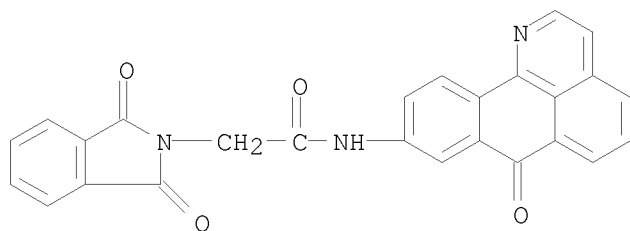
CN Acetamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-2-[(1,2,3,4-tetrahydro-9-acridinyl)amino]- (CA INDEX NAME)

10/573,931



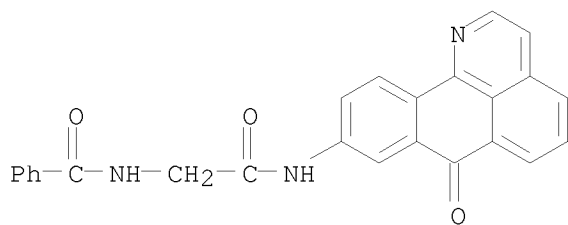
RN 949014-07-7 CAPLUS

CN 2H-Isoindole-2-acetamide, 1,3-dihydro-1,3-dioxo-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



RN 949014-09-9 CAPLUS

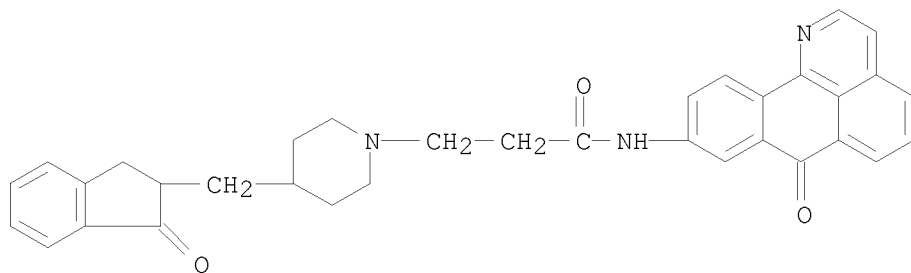
CN Benzamide, N-[2-oxo-2-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]ethyl]- (CA INDEX NAME)



RN 949014-11-3 CAPLUS

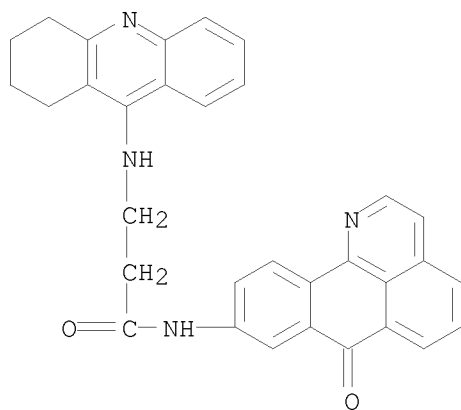
CN 1-Piperidinepropanamide, 4-[(2,3-dihydro-1-oxo-1H-inden-2-yl)methyl]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

10/573,931



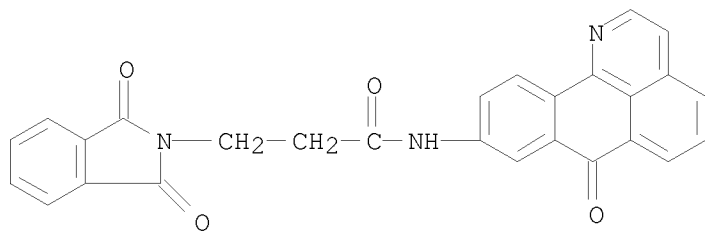
RN 949014-13-5 CAPLUS

CN Propanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-3-[(1,2,3,4-tetrahydro-9-acridinyl)amino]- (CA INDEX NAME)



RN 949014-15-7 CAPLUS

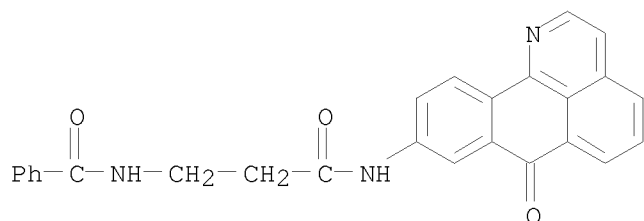
CN 2H-Isoindole-2-propanamide, 1,3-dihydro-1,3-dioxo-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



RN 949014-17-9 CAPLUS

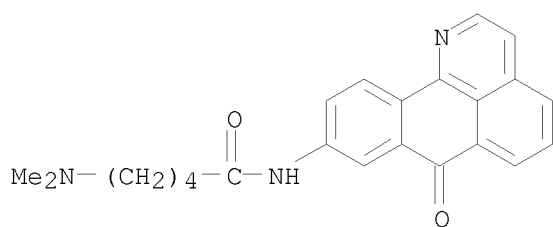
CN Benzamide, N-[3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]propyl]- (CA INDEX NAME)

10/573,931



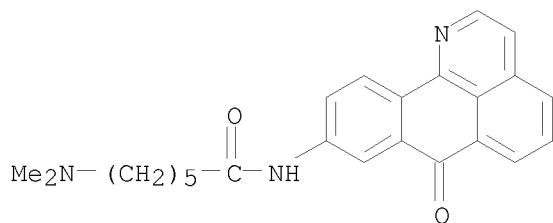
RN 949014-19-1 CAPLUS

CN Pentanamide, 5-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



RN 949014-21-5 CAPLUS

CN Hexanamide, 6-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



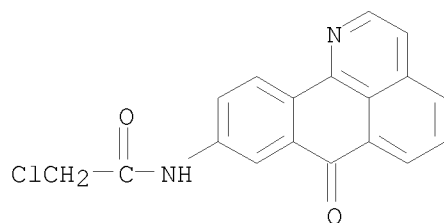
IT 946433-65-4P 946433-74-5P 946433-75-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(intermediate; preparation of 1-azabenzanthrone derivs. as  
acetylcholinesterase inhibitors)

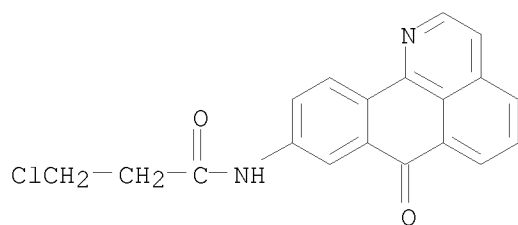
RN 946433-65-4 CAPLUS

CN Acetamide, 2-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX  
NAME)

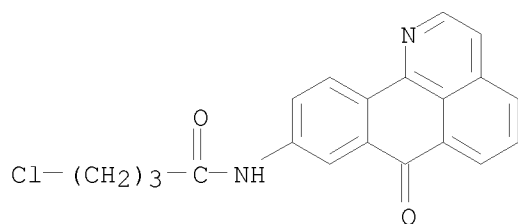


10/573,931

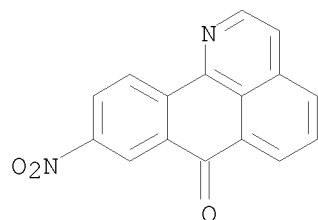
RN 946433-74-5 CAPLUS  
CN Propanamide, 3-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



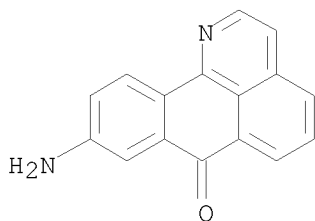
RN 946433-75-6 CAPLUS  
CN Butanamide, 4-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



IT 131023-51-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of 1-azabenzanthrone derivs. as acetylcholinesterase inhibitors)  
RN 131023-51-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 9-nitro- (CA INDEX NAME)



IT 131023-54-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 1-azabenzanthrone derivs. as acetylcholinesterase inhibitors)  
RN 131023-54-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 9-amino- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 11 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:652192 CAPLUS

DOCUMENT NUMBER: 147:277771

TITLE: Derivatives of oxoisoaporphine alkaloids: A novel class of selective acetylcholinesterase inhibitors  
AUTHOR(S): Tang, Huang; Ning, Fang-Xian; Wei, Yong-Biao; Huang, Shi-Liang; Huang, Zhi-Shu; Chan, Albert Sun-Chi; Gu, Lian-Quan

CORPORATE SOURCE: School of Pharmaceutical Sciences, Sun Yat-Sen University, Guangzhou, 510080, Peop. Rep. China

SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(13), 3765-3768

CODEN: BMCLE8; ISSN: 0960-894X

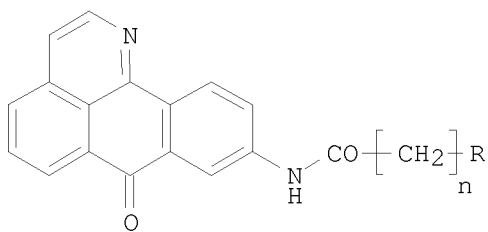
PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:277771

GI



I

AB A series of 9-aminoalkanamido-1-azabenzanthrone derivs., such as I [R = 1-pyrrolidiny1, NMe2, n = 1, 2, 3; R = NEt2, NH(CH2)2NMe2, NH(CH2)2OH, n = 2], and corresponding quaternary methiodide salts, such as I [R = 1-methyl-1-pyrrolidinium, N+Me3.I-, n = 1, 2, 3; R = N+(Me)Et2.I-, n = 2], were designed and synthesized as acetylcholinesterase (AChE) or butyrylcholinesterase (BuChE) inhibitors. The synthetic compds. exhibited high AChE inhibitory activity with IC50 values in the nanomolar range and high selectivity for AChE over BuChE (45- to 1980-fold). The structure-activity relationships (SARs) were discussed.

IT 131023-54-6P 946433-66-5P 946433-77-8P

946433-78-9P 946433-79-0P 946433-80-3P

946433-81-4P 946433-82-5P 946433-83-6P

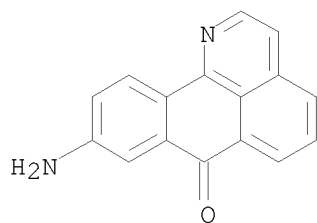
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

10/573,931

(synthesis and acetylcholinesterase-inhibiting activity of  
oxoisoaporphine alkaloid derivs.)

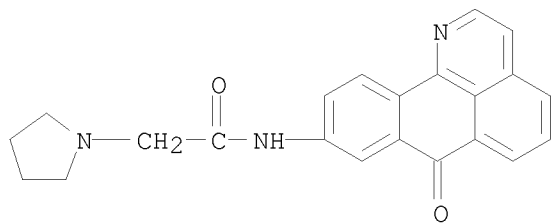
RN 131023-54-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 9-amino- (CA INDEX NAME)



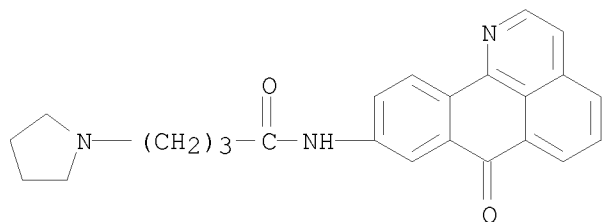
RN 946433-66-5 CAPLUS

CN 1-Pyrrolidineacetamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



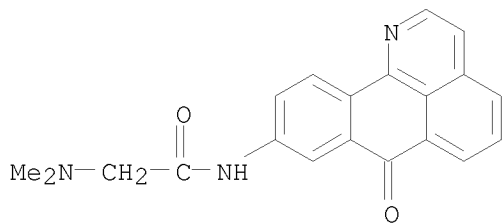
RN 946433-77-8 CAPLUS

CN 1-Pyrrolidinebutanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



RN 946433-78-9 CAPLUS

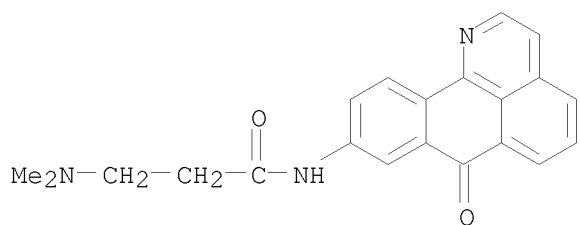
CN Acetamide, 2-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



10/573,931

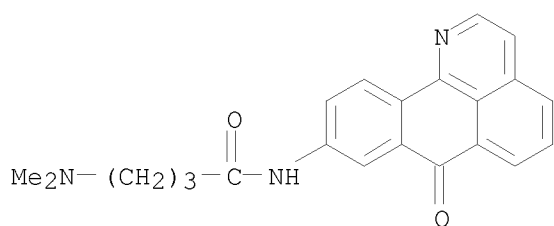
RN 946433-79-0 CAPLUS

CN Propanamide, 3-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



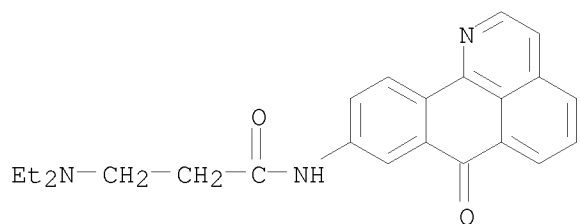
RN 946433-80-3 CAPLUS

CN Butanamide, 4-(dimethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



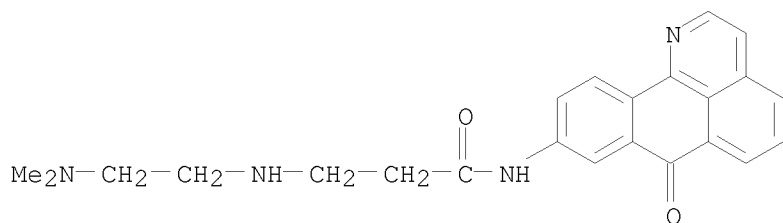
RN 946433-81-4 CAPLUS

CN Propanamide, 3-(diethylamino)-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)



RN 946433-82-5 CAPLUS

CN Propanamide, 3-[[2-(dimethylamino)ethyl]amino]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)-  
(CA INDEX NAME)

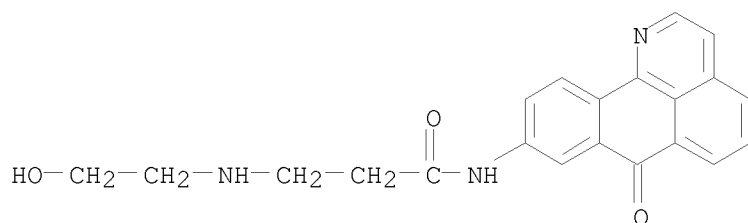




10/573,931

RN 946433-83-6 CAPLUS

CN Propanamide, 3-[(2-hydroxyethyl)amino]-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)

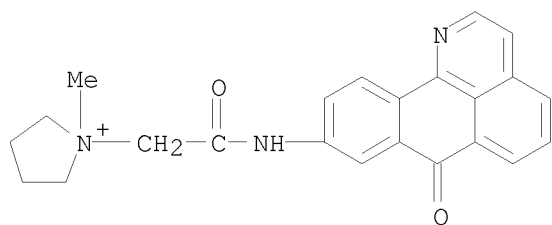


IT 946433-67-6P 946433-68-7P 946433-69-8P  
946433-70-1P 946433-71-2P 946433-72-3P  
946433-73-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(synthesis and acetylcholinesterase-inhibiting activity of oxoisoaporphine alkaloid derivs.)

RN 946433-67-6 CAPLUS

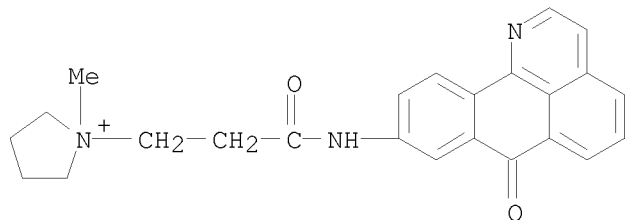
CN Pyrrolidinium, 1-methyl-1-[2-oxo-2-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]ethyl]-, iodide (1:1) (CA INDEX NAME)



● I<sup>-</sup>

RN 946433-68-7 CAPLUS

CN Pyrrolidinium, 1-methyl-1-[3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]propyl]-, iodide (1:1) (CA INDEX NAME)

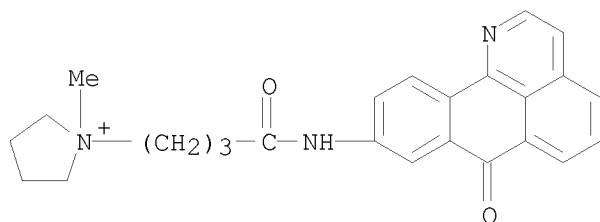


● I<sup>-</sup>

10/573,931

RN 946433-69-8 CAPLUS

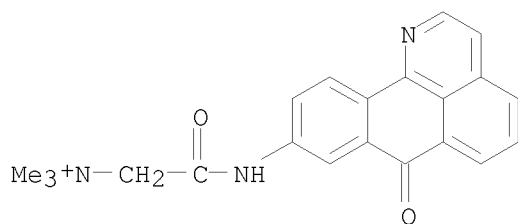
CN Pyrrolidinium, 1-methyl-1-[4-oxo-4-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]butyl]-, iodide (1:1) (CA INDEX NAME)



● I<sup>-</sup>

RN 946433-70-1 CAPLUS

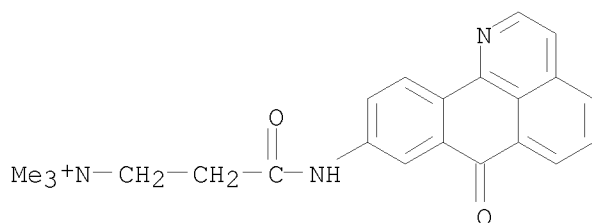
CN Ethanaminium, N,N,N-trimethyl-2-oxo-2-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)



● I<sup>-</sup>

RN 946433-71-2 CAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)



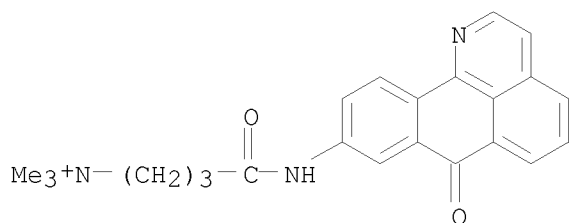
● I<sup>-</sup>

RN 946433-72-3 CAPLUS

CN 1-Butanaminium, N,N,N-trimethyl-4-oxo-4-[(7-oxo-7H-dibenzo[de,h]quinolin-9-

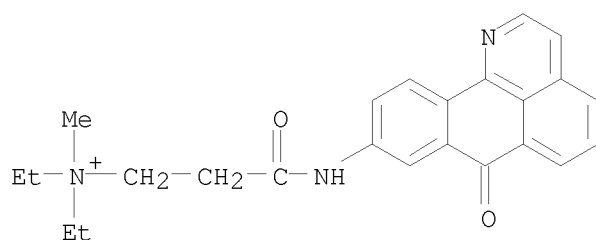
10/573,931

yl)amino]-, iodide (1:1) (CA INDEX NAME)



RN 946433-73-4 CAPLUS

CN 1-Propanaminium, N,N-diethyl-N-methyl-3-oxo-3-[(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)amino]-, iodide (1:1) (CA INDEX NAME)

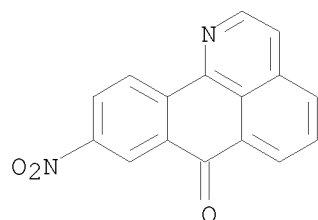


IT 131023-51-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis and acetylcholinesterase-inhibiting activity of oxoisoaporphine alkaloid derivs.)

RN 131023-51-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 9-nitro- (CA INDEX NAME)



IT 946433-65-4P 946433-74-5P 946433-75-6P

946433-76-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

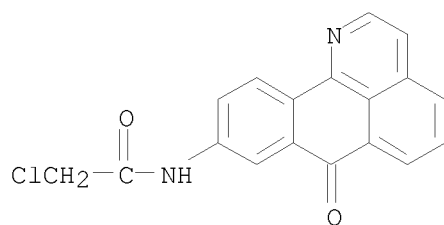
(synthesis and acetylcholinesterase-inhibiting activity of

10/573,931

oxoisoaporphine alkaloid derivs.)

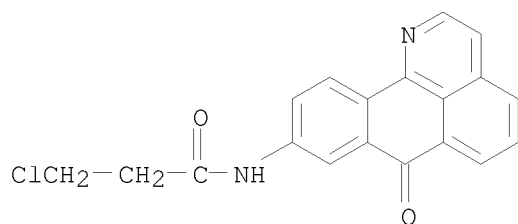
RN 946433-65-4 CAPLUS

CN Acetamide, 2-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



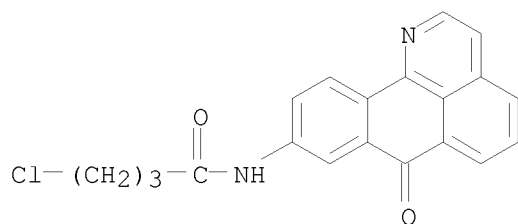
RN 946433-74-5 CAPLUS

CN Propanamide, 3-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



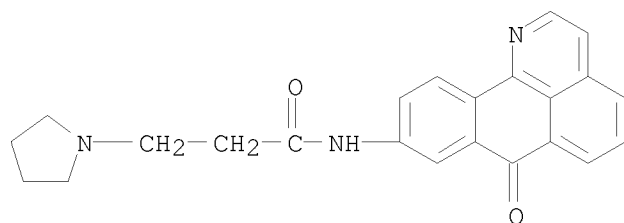
RN 946433-75-6 CAPLUS

CN Butanamide, 4-chloro-N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



RN 946433-76-7 CAPLUS

CN 1-Pyrrolidinepropanamide, N-(7-oxo-7H-dibenzo[de,h]quinolin-9-yl)- (CA INDEX NAME)



10/573,931

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:610720 CAPLUS

DOCUMENT NUMBER: 147:53020

TITLE: Process for preparation of ortho-metalated  
platinum-group metal compounds as components for  
electroluminescent devices

INVENTOR(S): Stoessel, Philipp; Vestweber, Horst; Heil, Holger;  
Parham, Amir; Fortte, Rocco; Breuning, Esther

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: Ger. Offen., 28pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102005057963	A1	20070606	DE 2005-102005057963	20051205
WO 2007065523	A1	20070614	WO 2006-EP10740	20061109
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1957505	A1	20080820	EP 2006-828977	20061109
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
JP 2009518324	T	20090507	JP 2008-543676	20061109
US 20080312396	A1	20081218	US 2008-95970	20080603
CN 101321774	A	20081210	CN 2006-80045811	20080605
IN 2008KN02666	A	20090123	IN 2008-KN2666	20080701
KR 2008081308	A	20080909	KR 2008-716378	20080704
PRIORITY APPLN. INFO.:			DE 2005-102005057963A	20051205
			WO 2006-EP10740	W 20061109

OTHER SOURCE(S): CASREACT 147:53020; MARPAT 147:53020

AB An improved process is disclosed for cyclometalation of organic ligands L, D(cycle1)-C(cycle2) (D, C = neutral donor atom and anionic carbon atom, resp., included in the cycles) for preparation of platinum-group metal complexes [M(L1)m(L2)n] [1, M = Rh, Ir, Pd, Pt, preferably M = Ir; m+n = 3 for Rh, Ir, m+n = 2 for Pd, Pt; m = 2-3, n = 0, 1; preferably C(cycle2) = 5-20-membered optionally substituted, optionally fused C-bound (hetero)aromatic ring; D(cycle1) = 5-20-membered N-bound heterocycle, containing

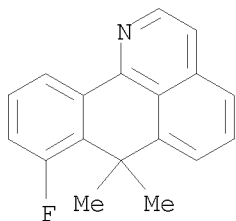
at least one imino- or aromatic nitrogen at the position 2 to junction and at least 2 carbon atoms], useful as luminescent components for organic light-emitting devices (no data), comprising reaction of metal salts

MXp·zH<sub>2</sub>O·yHX (2) or Yn[MXq]·zH<sub>2</sub>O·yHX (3) or dimeric complexes [M<sub>2</sub>(L<sub>1</sub>)<sub>2</sub>m(μ-X)<sub>2</sub>] with 2-50 equiv of protonated ligands HL<sub>2</sub> [HL<sub>2</sub> = D(cycle<sub>1</sub>)-HC(cycle<sub>2</sub>)] in the presence of 20-300 equiv of added salt(s) containing at least 2 oxygen atoms, preferably alkali-, alkaline earth metal, ammonium or phosphonium carbonates, sulfates, sulfites, nitrates, nitrites, phosphates, borates, carboxylates, sulfonates, α- and β-ketocarboxylates, β-diketones, salicylates, benzenedicarboxylates; at 50-100° in homogeneous aqueous organic solvent containing preferably 40-60 vol% of H<sub>2</sub>O, preferably in 40-60 vol% aqueous dioxane for 5-50 h, optionally under microwave irradiation; the prepared complex 1 may be subjected to thermal or photochem. mer-fac-isomerization. The presence of water and added salt(s) resulted in substantial improvement of the reaction conditions, providing higher yields of cyclometalated complexes at milder conditions, thus enabling preparation of complexes of the type 1 containing unstable and thermally-sensitive substituents. In an example, reaction of 10 mmol of IrCl<sub>3</sub>·H<sub>2</sub>O and 60 mmol of 2-(2-pyridinyl)benzo[b]thiophene in 1000 mL of 50% aqueous dioxane in the presence of 300 mmol of sodium acetate at 80° for 30 h gave the complex 1, mer-tris[2-(2-pyridinyl-κN)-3-benzo[b]thienyl-κC]iridium, with 81.2% yield.

IT 850040-32-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (improved process for preparation of platinum-group metal metallacyclic electroluminescent arylpyridinate complexes by cyclometalation in aqueous solvents in presence of salt additives)

RN 850040-32-3 CAPLUS

CN 7H-Dibenzo[de,h]quinoline, 8-fluoro-7,7-dimethyl- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 13 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1053937 CAPLUS

DOCUMENT NUMBER: 145:460739

TITLE: Ionizing rule and characteristic spectra analysis of electrospray ionization for alkaloids in Menispermum dauricum DC

AUTHOR(S): Chen, Yong; Chen, Huaixia

CORPORATE SOURCE: Hubei Province Key Lab. of Bio-Technology of Traditional Chinese Medicine, Hubei University, Wuhan, 430062, Peop. Rep. China

SOURCE: Fenxi Huaxue (2006), 34(5), 675-678

CODEN: FHHHDT; ISSN: 0253-3820

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The MS and MS<sub>2</sub> spectra of tetrandrine and sinomenine in pos. ion detection

mode were analyzed by electrospray ionization quadrupole ion trap mass spectrometry (ESI-QITMS), and their cleavage patterns were summarized. The alkaloids extracted from the medicinal materials were also analyzed using ESI-QITMS. Tetrandrine and sinomenine were identified in the extraction by comparing the MS2 spectra of mol. ions  $m/z$  623 and 330 with those of tetrandrine and sinomenine stds. Other known 14 ingredients were identified according to the mol. ions in MS and the characteristic product ions in MS2. Acutumine, acutumidine and acutuminine, which were three kinds of new alkaloids containing chlorine found in the leaves of *Menispermum dauricum* DC., were found in the extraction. The characteristic print of sixteen kinds of alkaloids (one has four kinds of isomers) in the standard medicinal materials was worked in selected ion monitor mode.

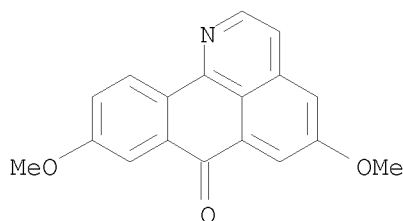
IT 96681-50-4, Bianfugecine

RL: ANT (Analyte); ANST (Analytical study)

(anal. of alkaloids in *Menispermum dauricum* by electrospray ionization MS)

RN 96681-50-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L6 ANSWER 14 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1040729 CAPLUS

DOCUMENT NUMBER: 146:54913

TITLE: Aporphine alkaloids and their reversal activity of multidrug resistance (MDR) from the stems and rhizomes of *Sinomenium acutum*

AUTHOR(S): Min, Yong Deuk; Choi, Sang Un; Lee, Kang Ro

CORPORATE SOURCE: Natural Products Laboratory, College of Pharmacy, Sungkyunkwan University, Suwon, 440-746, S. Korea

SOURCE: Archives of Pharmacal Research (2006), 29(8), 627-632  
CODEN: APHRDQ; ISSN: 0253-6269

PUBLISHER: Pharmaceutical Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Chromatog. separation of the MeOH extract from the stems and rhizomes of *Sinomenium acutum* led to the isolation of nine alkaloids and a lignan. Their structures were determined to be dauriporphine (1), bianfugecine (2), dauriporphinoline (3), menisporphine (4), (-)-syringaresinol (5), N-feruloyltyramine (6), acutumine (7), dauricumine (8), sinomenine (9), and magnoflorine (10) by spectroscopic means. These compds. were examined for their P-gp mediated MDR reversal activity in human cancer cells. Compound 1 showed the most potent P-gp MDR inhibition activity with an ED50 value 0.03  $\mu\text{g/mL}$  and 0.00010  $\mu\text{g/mL}$  in the MES-SA/DX5 and HCT15 cells, resp.

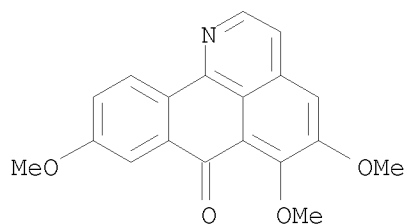
IT 83287-02-9, Menisporphine 88142-60-3, Dauriporphine  
96681-50-4, Bianfugecine 100009-82-3,  
Dauriporphinoline

10/573,931

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(aporphine alkaloids from the stems and rhizomes of *Sinomenium acutum*  
and their reversal of multidrug resistance (MDR))

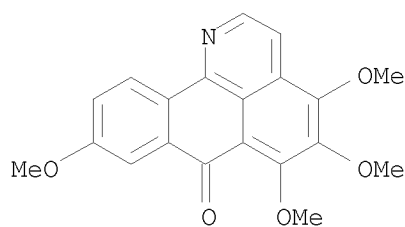
RN 83287-02-9 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,9-trimethoxy- (CA INDEX NAME)



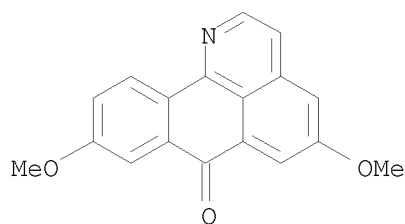
RN 88142-60-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)



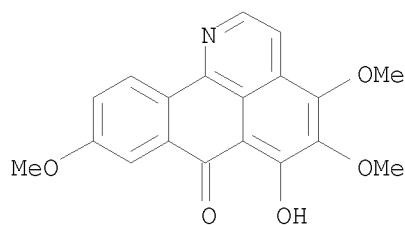
RN 96681-50-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy- (CA INDEX NAME)



RN 100009-82-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-4,5,9-trimethoxy- (CA INDEX NAME)





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OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:943708 CAPLUS

DOCUMENT NUMBER: 147:117708

TITLE: Product class 10: anthraquinone and phenanthrenedione imines and diimines

AUTHOR(S): Avendano, C.; Menendez, J. C.

CORPORATE SOURCE: Departamento de Quimica Organica y Farmaceutica,  
Facultad de Farmacia, Universidad Complutense, Madrid,  
28040, Spain

SOURCE: Science of Synthesis (2006), 28, 735-806  
CODEN: SSCYJ9

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

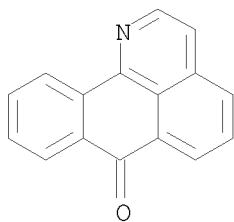
AB A review of methods to prepare anthraquinone and phenanthrenedione imines and diimines.

IT 65543-67-1P, 7H-Dibenzo[de,h]quinolin-7-one  
83287-03-0P 88741-67-7P 100009-82-3P  
120346-99-8P 152027-91-3P 155269-09-3P  
155269-10-6P 155269-11-7P 155269-12-8P  
155269-13-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(review of preparation of anthraquinone and phenanthrenedione imines and diimines)

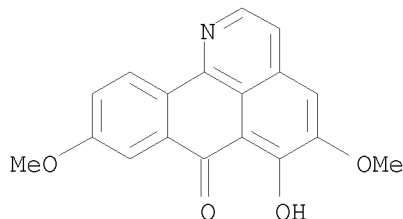
RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



RN 83287-03-0 CAPLUS

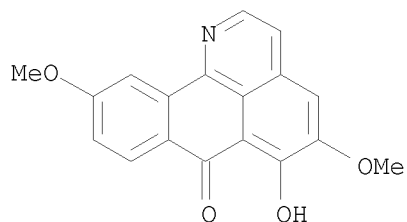
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5,9-dimethoxy- (CA INDEX NAME)



RN 88741-67-7 CAPLUS

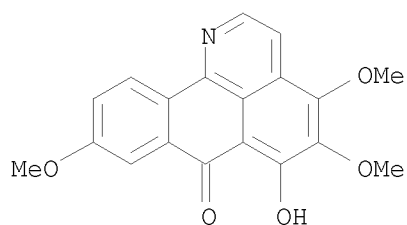
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5,10-dimethoxy- (CA INDEX NAME)

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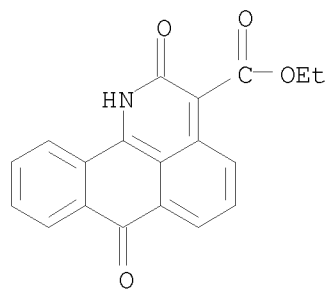
RN 100009-82-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-4,5,9-trimethoxy- (CA INDEX NAME)



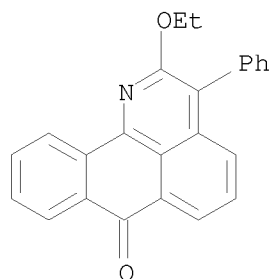
RN 120346-99-8 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-3-carboxylic acid, 2,7-dihydro-2,7-dioxo-, ethyl ester (CA INDEX NAME)



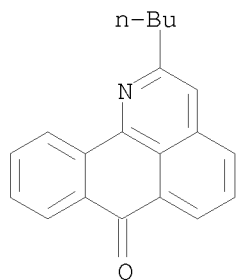
RN 152027-91-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-ethoxy-3-phenyl- (CA INDEX NAME)

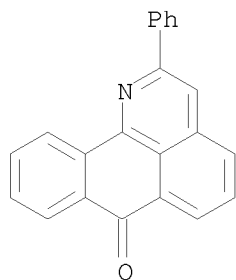


10/573,931

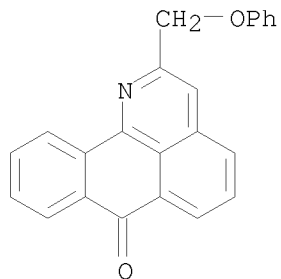
RN 155269-09-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl- (CA INDEX NAME)



RN 155269-10-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-phenyl- (CA INDEX NAME)

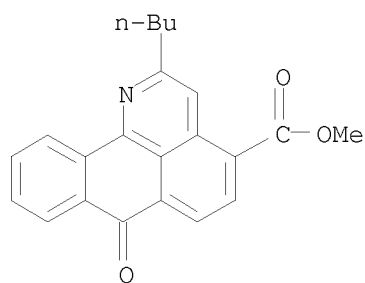


RN 155269-11-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(phenoxyethyl)- (CA INDEX NAME)

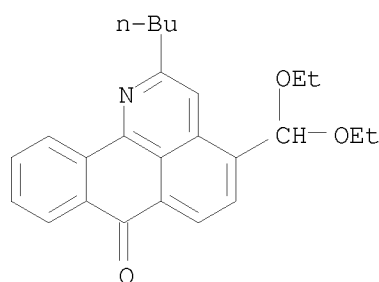


RN 155269-12-8 CAPLUS  
CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 2-butyl-7-oxo-, methyl ester  
(CA INDEX NAME)

10/573,931

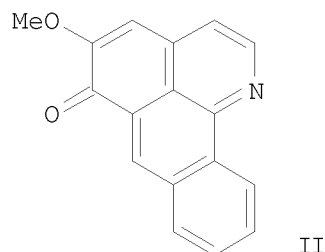
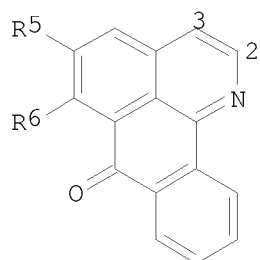


RN 155269-13-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl-4-(diethoxymethyl)- (CA INDEX  
NAME)



REFERENCE COUNT: 182 THERE ARE 182 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L6 ANSWER 16 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2005:1309145 CAPLUS  
DOCUMENT NUMBER: 144:192402  
TITLE: Synthesis and total assignment of <sup>1</sup>H and <sup>13</sup>C NMR  
spectra of new oxoisoaporphines by long-range  
heteronuclear correlations  
AUTHOR(S): Sobarzo-Sanchez, Eduardo; De la Fuente, Julio;  
Castedo, Luis  
CORPORATE SOURCE: Department of Organic Chemistry and C.S.I.C.  
Associated Unit, Faculty of Chemistry, University of  
Santiago de Compostela, Santiago de Compostela, 15782,  
Spain  
SOURCE: Magnetic Resonance in Chemistry (2005), 43(12),  
1080-1083  
CODEN: MRCHEG; ISSN: 0749-1581  
PUBLISHER: John Wiley & Sons Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 144:192402  
GI



AB The new oxoisoaporphines I (R5 = H, OMe, R6 = H; R5 = OMe, R6 OH) were prepared by Pd/C catalyzed dehydrogenation of the corresponding 2,3-dihydro-7H-dibenzo[de,h]quinolin-7-ones. 5-Methoxy-6H-dibenzo[de,h]quinolin-6-one (II) was prepared by cyclization of [2-(3,4-dihydro-6,7-dimethoxyisoquinolin-1-yl)phenyl]methyl benzoate using an AcOH/H2SO4 mixture at 100 °C. Oxoisoaporphine I (R5 = OH, R6 = H) was prepared by treating I (R5 = OMe, R6 = H) with Zn dust and HCl. The structures prepared oxoisoaporphines were confirmed, and 1H and 13C NMR spectra were completely assigned using two-dimensional NMR techniques.

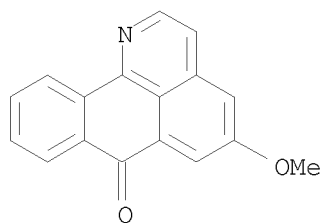
IT 28399-74-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and total assignment of 1H and 13C NMR spectra of new oxoisoaporphines by long-range heteronuclear correlations)

RN 28399-74-8 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)



IT 65543-67-1P, 7H-Dibenzo[de,h]quinolin-7-one

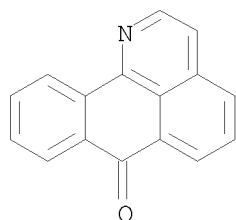
631914-67-5P 874990-03-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(synthesis and total assignment of 1H and 13C NMR spectra of new oxoisoaporphines by long-range heteronuclear correlations)

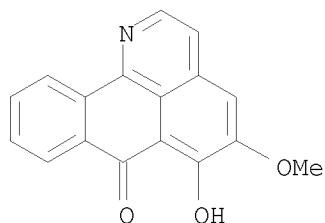
RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)

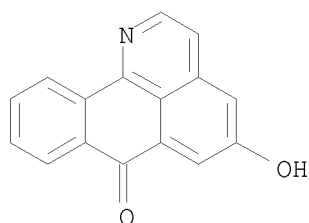


10/573,931

RN 631914-67-5 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5-methoxy- (CA INDEX NAME)



RN 874990-03-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5-hydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)  
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:888206 CAPLUS

DOCUMENT NUMBER: 143:213197

TITLE: Jet-printing inks with good light and ozone  
resistance, and jet printing method using them

INVENTOR(S): Oya, Hidenobu; Suzuki, Takashi; Takahashi, Mari;  
Ikesu, Satoru

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 88 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005225944	A	20050825	JP 2004-34772	20040212
PRIORITY APPLN. INFO.:			JP 2004-34772	20040212
OTHER SOURCE(S):	MARPAT	143:213197		
GI				

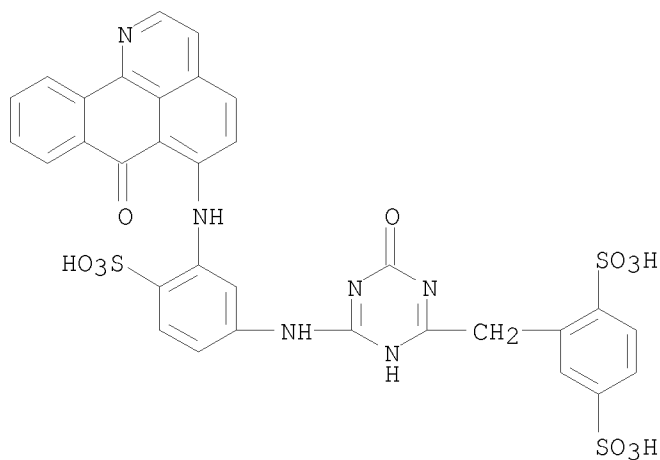
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The inks contain  $\geq 1$  dyes selected from I (R11 = branched alkyl, cycloalkyl, hetero ring, amino; R12-14 = H, substituent; n11 = 1-3; n12 = 1-4), II (R31-35 = H, substituent; n31 = 1-3), III (R91-94 = H, substituent; n91 = 1-3; n92 = 1, 2), perimidin-4-one derivs., and other dyes having 9-anthracenone structures or 1-naphthalenone structures. Thus, an ink containing I Na salt [R11 = tert-Bu, R12 = Me, R13 = 2,4-disulfophenylamino (at 1 position), R14 = H, n11 = 1, n12 = 4] was printed on a paper medium with 60° gloss 38% that was coated with a composition containing silica (A 300), polyvinyl alc. (PVA 235), and acrylic acid-Me acrylate-acryloyloxypropyltrimethylammonium chloride copolymer to give an image showing suppressed discoloration by ozone.

IT 862251-36-3D, salts  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye; dyes for jet-printing inks with good light and ozone resistance)

RN 862251-36-3 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[[[5,6-dihydro-6-oxo-4-[[3-[(7-oxo-7H-dibenzo[de,h]quinolin-6-yl)amino]-4-sulfophenyl]amino]-1,3,5-triazin-2-yl]methyl]- (CA INDEX NAME)



L6 ANSWER 18 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:811006 CAPLUS

DOCUMENT NUMBER: 143:213187

TITLE: Color ink sets containing phthalocyanine dyes and nitrogen-containing heterocyclic dyes for ink-jet printing

INVENTOR(S): Takahashi, Mari; Yasukawa, Hiroyuki; Suzuki, Takashi; Ikesu, Satoru

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 95 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005220186	A	20050818	JP 2004-27799	20040204
PRIORITY APPLN. INFO.:			JP 2004-27799	20040204
OTHER SOURCE(S):		MARPAT 143:213187		

10/573,931

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The ink sets, consisting of  $\geq 2$  inks with different colors, contain phthalocyanines I [X1-X4 = SOZ, SO2Z, SO2NRaRb, SO3H, CONRaRb, CO2Ra; Z = (un)substituted (cyclo)alkyl, alkenyl, aralkyl, aryl, heterocyclyl; Ra, Rb = H, (un)substituted (cyclo)alkyl, alkenyl, aralkyl, aryl, heterocyclyl; Y1-Y4 = monovalent substituent; a1-a4, b1-b4 = 0-4;  $\geq 1$  of a1-a4  $\neq 0$ ; M = H, metal, metal oxide, metal hydroxide, metal halide] and heterocyclic compds. II [A = (un)substituted pyridine ring, pyridazine ring, pyrimidine ring, etc.; R2, R3 = H, substituent; m = 0-3; n = 0-4]. The inks provides images with high quality and storage stability.

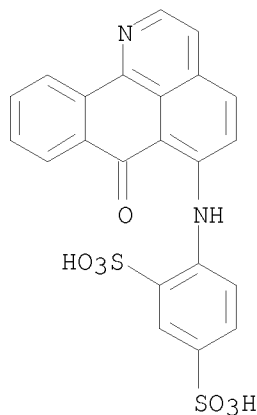
IT 862157-15-1 862157-16-2 862157-17-3

RL: TEM (Technical or engineered material use); USES (Uses)

(color ink sets containing phthalocyanine dyes and N-containing heterocyclic dyes for ink-jet printing)

RN 862157-15-1 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[(7-oxo-7H-dibenzo[de,h]quinolin-6-yl)amino]-, potassium salt (1:2) (CA INDEX NAME)



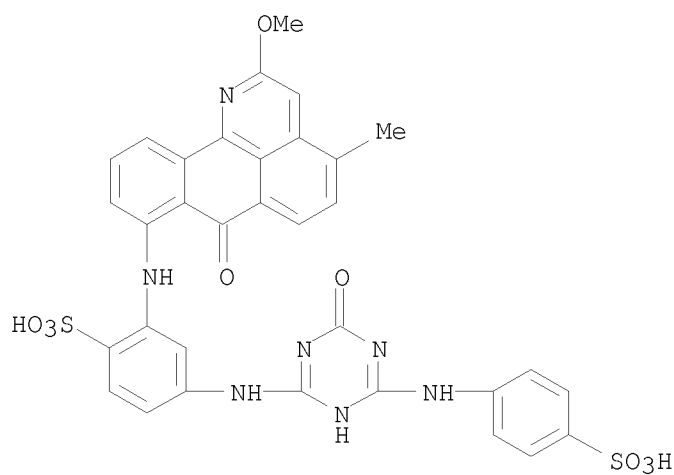
● 2 K

RN 862157-16-2 CAPLUS

CN Benzenesulfonic acid, 4-[[[1,4-dihydro-4-oxo-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-2-[(2-methoxy-4-methyl-7-oxo-7H-dibenzo[de,h]quinolin-8-yl)amino]-, dipotassium salt (9CI) (CA INDEX NAME)

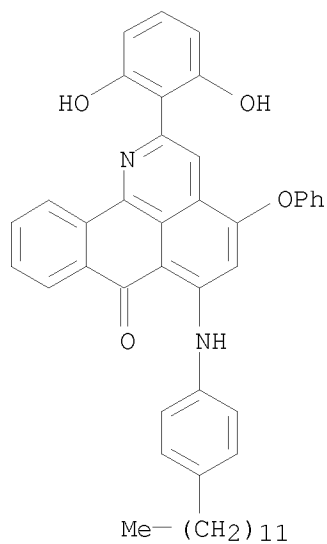


10/573,931



● 2 K

RN 862157-17-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(2,6-dihydroxyphenyl)-6-[(4-dodecylphenyl)amino]-4-phenoxy- (CA INDEX NAME)

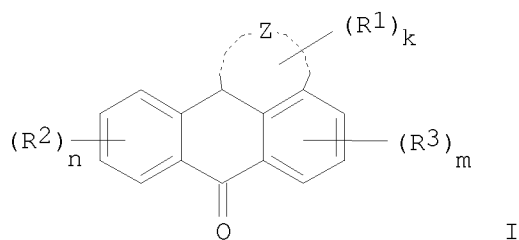


L6 ANSWER 19 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2005:635138 CAPLUS  
DOCUMENT NUMBER: 143:142703  
TITLE: Electrophotographic color toner for manufacturing optical disks, thermographic copying sheets, and color filters of optical imaging devices  
INVENTOR(S): Takahashi, Mari; Suzuki, Takashi; Yasukawa, Hiroyuki; Ikesu, Satoru  
PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

10/573,931

SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005196018	A	20050721	JP 2004-3811	20040109
PRIORITY APPLN. INFO.:			JP 2004-3811	20040109
OTHER SOURCE(S):	MARPAT	143:142703		
GI				



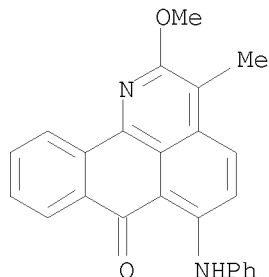
AB The title toner contains compound I( Z = N-containing heterocyclic ring; R1-3 = H, substituent; k = integer 0-2; m = integer 0-3; n = integer 0-4). The toner provides light-resistant images or pattern of good color and high color transparency and is suitable for manufacturing optical disks, thermog. copying sheets, and color filters of optical imaging devices.

IT 859161-41-4P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(electrophotog. color toner for manufacturing optical disks, thermog.

copying sheets, and color filters of optical imaging devices)

RN 859161-41-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-3-methyl-6-(phenylamino)- (CA INDEX NAME)



L6 ANSWER 20 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

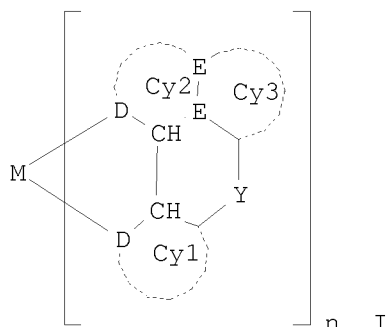
ACCESSION NUMBER: 2005:324257 CAPLUS

DOCUMENT NUMBER: 142:402930

TITLE: Metal complexes and condensed ring-containing ligands and their preparation and use in electronic devices

INVENTOR(S): Fortte, Rocco; Stoessel, Philipp; Gerhard, Anja; Vestweber, Horst  
 PATENT ASSIGNEE(S): Covion Organic Semiconductors G.m.b.H., Germany  
 SOURCE: PCT Int. Appl., 54 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033244	A1	20050414	WO 2004-EP10836	20040928
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10345572	A1	20050519	DE 2003-10345572	20030929
EP 1675929	A1	20060705	EP 2004-765652	20040928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1860202	A	20061108	CN 2004-80028250	20040928
JP 2007507448	T	20070329	JP 2006-530031	20040928
KR 2006088889	A	20060807	KR 2006-706034	20060328
US 20070034863	A1	20070215	US 2006-573931	20060815
PRIORITY APPLN. INFO.:			DE 2003-10345572	A 20030929
			WO 2004-EP10836	W 20040928
OTHER SOURCE(S):			MARPAT 142:402930	
GI				



AB Metalorg. compds. described by the general formula  $M(L)_n(L')_m(L'')_o$  are described which have a partial structure described by the general formula I (M = a transition metal; Y = independently selected for each occurrence from BR1, CR2, C=O, C=NR1, C=CR2, SiR12, NR1, PR1, AR1, SbR1, BiR1, P(O)R1, P(S)-R1, P(Se)R1, As (O)R1, As (S)-R1, As (Se)R1, Sb(O)R1,

Sb(S)-R1, Sb(Se)R1, Bi(O)R1, Bi(S)-R1, Bi(Se)R1, O, S, Se, Te, SO, SeO, TeO, SO, SeO2, TeO2 or a single bond; D = independently selected C or a heteroatom with a nonbonded electron pair coordinated to the metal atom with the restriction that  $\geq 1$  D per ligand is C; E = independently selected C or N with the restriction that  $\geq 1$  E is C; Cy1, Cy2, Cy3 = independently selected (un)saturated or aromatic homo- or heterocycle; R1 = independently selected H or C1-20 aliphatic or aromatic hydrocarbon residue; n

= 1, 2, or 3; L' and L'' = monoanionic bidentate ligands; and m, o = 0, 1, or 2). Ligands associated with formula I are also described. Methods for preparing the complexes are described which entail the reaction of the ligands with metal ketonates, metal alcoholates, or single or multicentered metal halides. Polymers and dendrimers incorporating the complexes are described. The use of the metalorg. compds. in electronic devices and electronic devices (e.g., organic light-emitting diodes, organic integrated circuits, organic field-effect transistors, organic thin-film transistors, organic solar cells, or organic laser diodes) employing the materials are also described.

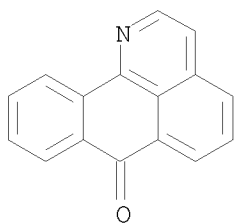
IT 65543-67-1, 1-Azabenzanthrone

RL: RCT (Reactant); RACT (Reactant or reagent)

(metal complexes and condensed ring-containing ligands and their preparation and use in electronic devices)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



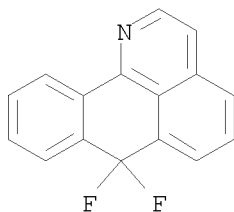
IT 850040-25-4P 850040-28-7P 850040-32-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(metal complexes and condensed ring-containing ligands and their preparation and use in electronic devices)

RN 850040-25-4 CAPLUS

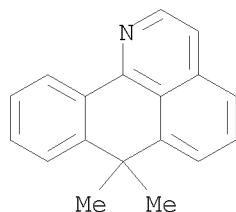
CN 7H-Dibenzo[de,h]quinoline, 7,7-difluoro- (CA INDEX NAME)



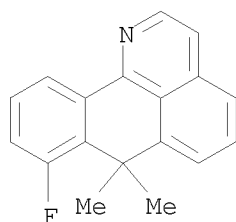
RN 850040-28-7 CAPLUS

CN 7H-Dibenzo[de,h]quinoline, 7,7-dimethyl- (CA INDEX NAME)

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RN 850040-32-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinoline, 8-fluoro-7,7-dimethyl- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 21 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:451665 CAPLUS

DOCUMENT NUMBER: 141:25180

TITLE: Anthraquinone dye-containing water-thinned  
jet-printing ink with good light fastness

INVENTOR(S): Iwamoto, Kyoko; Ninomiya, Hidetaka; Ikesu, Satoru;  
Suzuki, Takatugu; Takahashi, Mari

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: U.S. Pat. Appl. Publ., 62 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

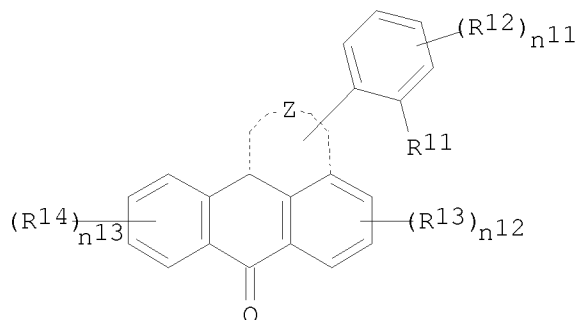
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 20040106782	A1	20040603	US 2003-717141	20031119
US 7011701	B2	20060314		
JP 2004190007	A	20040708	JP 2003-348021	20031007
PRIORITY APPLN. INFO.:			JP 2002-343792	A 20021127
			JP 2003-348021	A 20031007

OTHER SOURCE(S): MARPAT 141:25180

GI

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AB A group of dyes are disclosed, which are represented by the formula of I, wherein Z is an atomic group necessary to form a 6-membered nitrogen-containing aromatic ring; R11 is a hydrogen bonding group; R12, R13 and R14 are independently a hydrogen atom or a substituent; n11 and n13 are each an integer of 1 to 4; and n12 is an integer of 1 to 3. Thus, 2% of a prepared dye was dissolved in a solution comprising ethylene glycol (15%), glycerin (15%), Surfinol 465 (0.3%), and water, to give a sample showing superior light stability, as compared to comparative inks in a test.

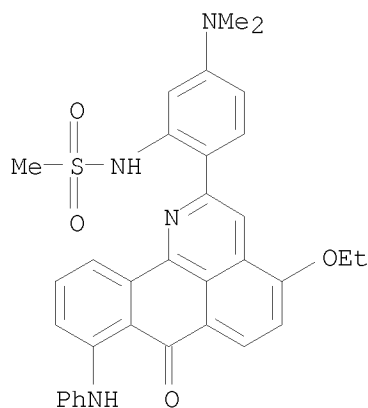
IT 698354-01-7D, sulfonated, salts 698354-38-0

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(anthraquinone dye-containing water-thinned jet-printing ink with good light fastness)

RN 698354-01-7 CAPLUS

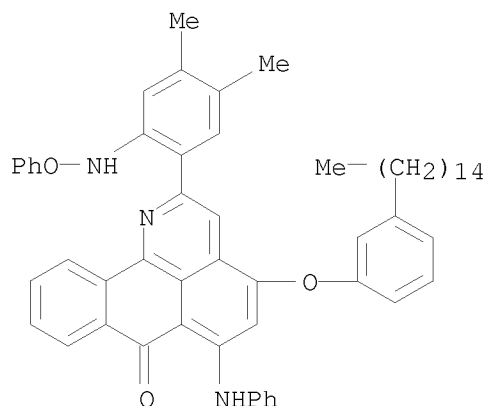
CN Methanesulfonamide, N-[5-(dimethylamino)-2-[4-ethoxy-7-oxo-8-(phenylamino)-7H-dibenzo[de,h]quinolin-2-yl]phenyl]- (CA INDEX NAME)



RN 698354-38-0 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-[4,5-dimethyl-2-(phenoxyamino)phenyl]-4-(3-pentadecylphenoxy)-6-(phenylamino)- (CA INDEX NAME)

10/573,931



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:152301 CAPLUS

DOCUMENT NUMBER: 141:395526

TITLE: Cyclocondensation reactions of acetylenic quinone derivatives with hydrazine

AUTHOR(S): Shvartsberg, M. S.; Ivanchikova, I. D.; Barabanov, I. I.

CORPORATE SOURCE: Inst. Khim. Kinet. Gorennya, SO RAN, Novosibirsk, 630090, Russia

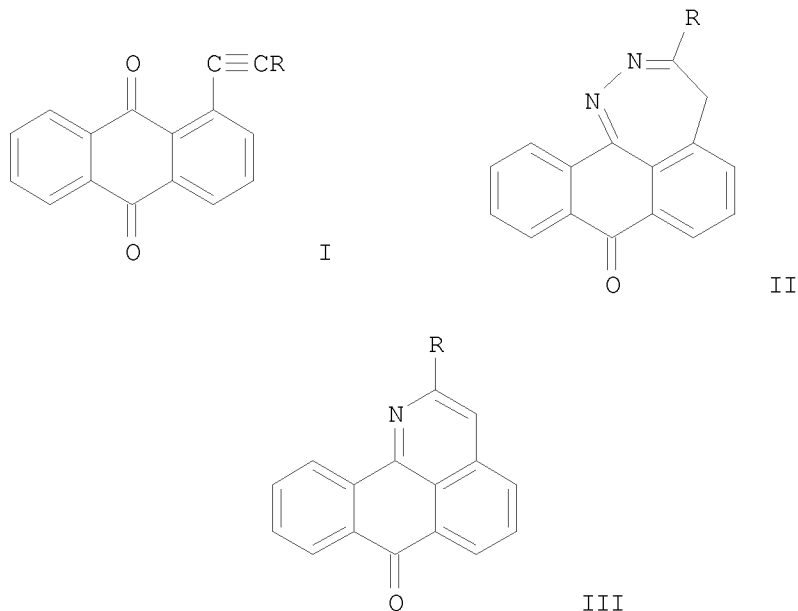
SOURCE: Azotistye Geterotsikly i Alkaloidy, [Materialy Mezhdunarodnoi Konferentsii "Khimiya i Biologicheskaya Aktivnost Azotistyykh Geterotsiklov i Alkaloidov"], 1st, Moskva, Russian Federation, Oct. 9-12, 2001 (2001), Volume 1, 582-586. Editor(s): Kartsev, V. G.; Tolstikov, G. A. Iridium-Press: Moscow, Russia. CODEN: 69FCD3

DOCUMENT TYPE: Conference

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 141:395526

GI



AB A symposium lecture on cyclocondensation reactions of alkynyl-substituted anthra- and naphthaquinones with hydrazine. E.g., reaction of alkynyl-substituted anthraquinones (I; R = Bu, Ph, CH<sub>2</sub>OPh, CMe<sub>2</sub>OH) with excess NH<sub>2</sub>NH<sub>2</sub> in pyridine at 90-115° for 20-90 min gave mixts. of 45-64% diazepineanthrones (II; same R) and 17-38% pyridineanthrones (III; same R). The effects of substituents on the regiochem. of the reaction is discussed. Other ring systems formed include benzo[de]cinnoline-7-ones, pyrazoleanthrones and benzo[f]isoindole-4,9-diones.

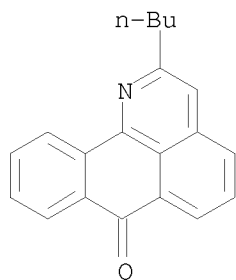
IT 155269-09-3P 155269-10-6P 155269-11-7P  
 155269-12-8P 155269-13-9P 220632-10-0P  
 220632-11-1P 220632-12-2P 426207-03-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(cyclocondensation reactions of alkynyl-substituted anthra- and naphthaquinones with hydrazine and substituent effects on regiochem.)

RN 155269-09-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl- (CA INDEX NAME)

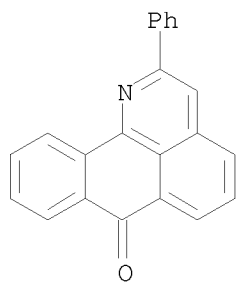


RN 155269-10-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-phenyl- (CA INDEX NAME)

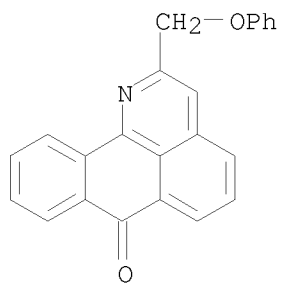


10/573,931



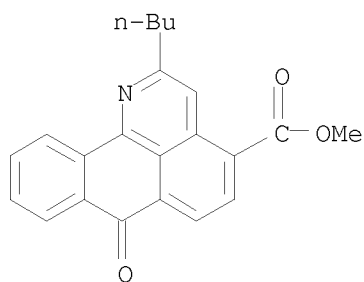
RN 155269-11-7 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(phenoxymethyl)- (CA INDEX NAME)



RN 155269-12-8 CAPLUS

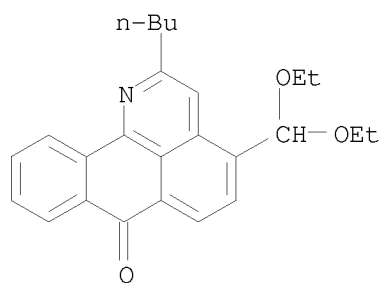
CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 2-butyl-7-oxo-, methyl ester (CA INDEX NAME)



RN 155269-13-9 CAPLUS

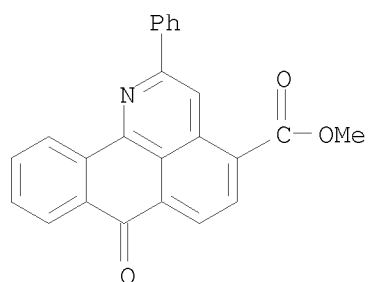
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl-4-(diethoxymethyl)- (CA INDEX NAME)

10/573,931



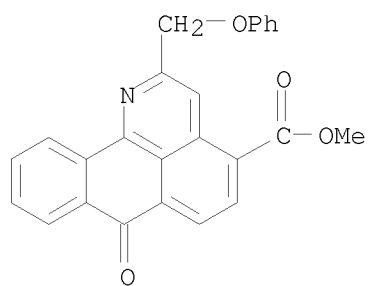
RN 220632-10-0 CAPLUS

CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 7-oxo-2-phenyl-, methyl ester  
(CA INDEX NAME)



RN 220632-11-1 CAPLUS

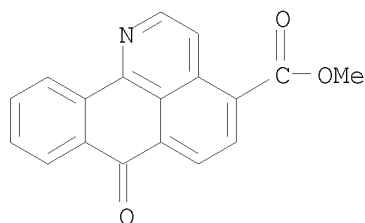
CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 7-oxo-2-(phenoxymethyl)-,  
methyl ester (CA INDEX NAME)



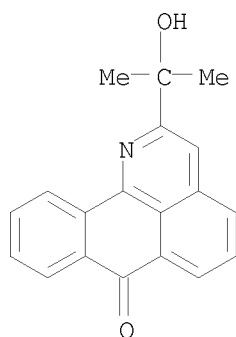
RN 220632-12-2 CAPLUS

CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 7-oxo-, methyl ester (CA  
INDEX NAME)

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RN 426207-03-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(1-hydroxy-1-methylethyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 23 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:947737 CAPLUS

DOCUMENT NUMBER: 140:6216

TITLE: Dyes for ink jet recording liquid

INVENTOR(S): Iwamoto, Kyoko; Ikesu, Satoru; Suzuki, Takatsugu

PATENT ASSIGNEE(S): Konica Corporation, Japan

SOURCE: Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1367104	A1	20031203	EP 2003-253047	20030515
EP 1367104	B1	20071212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2003342504	A	20031203	JP 2002-153904	20020528
JP 3979186	B2	20070919		
US 20030230216	A1	20031218	US 2003-437660	20030514
US 6916364	B2	20050712		

PRIORITY APPLN. INFO.: JP 2002-153904 A 20020528

OTHER SOURCE(S): MARPAT 140:6216

AB An ink jet recording liquid including a N-containing fused ring compound Each dye

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(2%), 15% ethylene glycol, 15% glycerin, 0.3% Surfynol 465, and pure water were mixed, filtered, and printed onto photo-jet coated paper to evaluate color tone, storage stability, and light fastness.

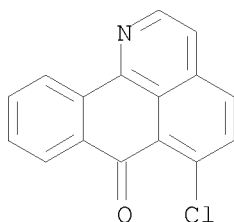
IT 627544-09-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(dye intermediate preparation and sulfonation; magenta dyes for ink jet recording of images with excellent balance of color tone, stability, and light fastness)

RN 627544-09-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-chloro- (CA INDEX NAME)



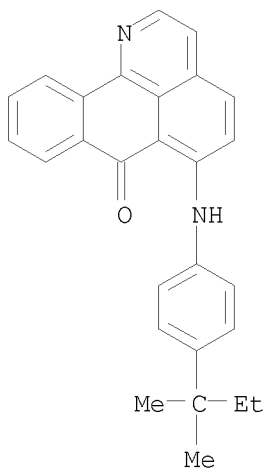
IT 627544-10-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; magenta dyes for ink jet recording of images with excellent balance of color tone, stability, and light fastness)

RN 627544-10-9 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-[[4-(1,1-dimethylpropyl)phenyl]amino]- (CA INDEX NAME)



IT 627544-17-6D, salts 627544-18-7D, salts

627544-19-8D, salts 627544-22-3 627544-25-6

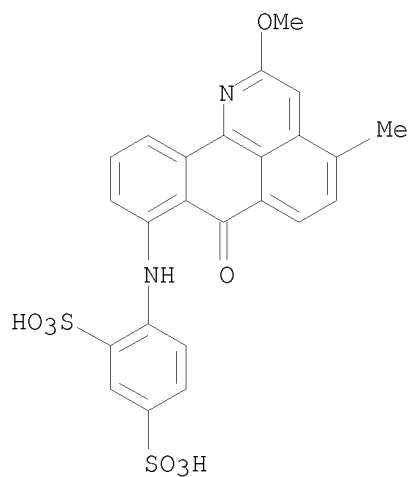
RL: TEM (Technical or engineered material use); USES (Uses)

(dye; magenta dyes for ink jet recording of images with excellent balance of color tone, stability, and light fastness)

RN 627544-17-6 CAPLUS

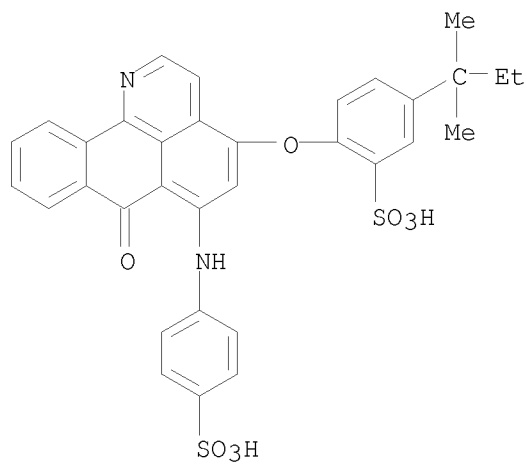
CN 1,3-Benzenedisulfonic acid, 4-[(2-methoxy-4-methyl-7-oxo-7H-dibenzo[de,h]quinolin-8-yl)amino]- (CA INDEX NAME)

10/573,931



RN 627544-18-7 CAPLUS

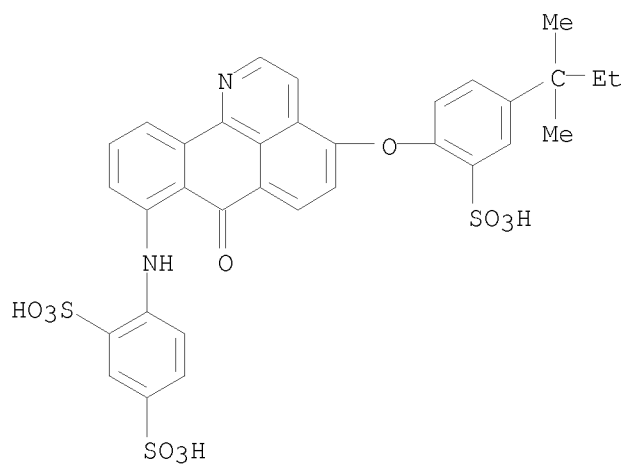
CN Benzenesulfonic acid, 5-(1,1-dimethylpropyl)-2-[[7-oxo-6-[(4-sulfonylphenyl)amino]-7H-dibenzo[de,h]quinolin-4-yl]oxy]- (CA INDEX NAME)



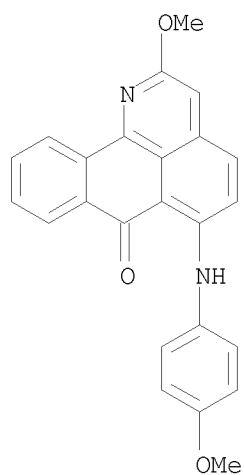
RN 627544-19-8 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[[4-[4-(1,1-dimethylpropyl)-2-sulfonylphenoxy]-7-oxo-7H-dibenzo[de,h]quinolin-8-yl]amino]- (CA INDEX NAME)

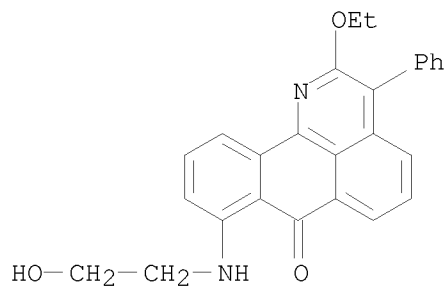
10/573,931



RN 627544-22-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-6-[(4-methoxyphenyl)amino]- (CA INDEX NAME)



RN 627544-25-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-ethoxy-8-[(2-hydroxyethyl)amino]-3-phenyl- (CA INDEX NAME)



10/573,931

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 24 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:732804 CAPLUS

DOCUMENT NUMBER: 140:27474

TITLE: An expedient synthesis of unusual oxoisoaporphine and  
annelated quinoline derivatives

AUTHOR(S): Sobarzo-Sanchez, Eduardo; Cassels, Bruce K.; Castedo,  
Luis

CORPORATE SOURCE: Department of Chemistry, Faculty of Sciences,  
University of Chile, Santiago, Chile

SOURCE: Synlett (2003), (11), 1647-1650

CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:27474

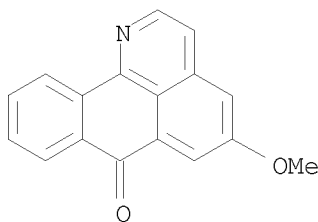
AB Several 2,3-dihydro-7H-dibenzo[de,h]quinolin-7-ones and  
7H-dibenzo[de,h]quinolin-7-ones were catalytically hydrogenated over PtO<sub>2</sub>  
in acetic acid to afford 7-hydroxyquinoline and quinolone derivs. with  
reduced benzene rings. Reactants used in this study included  
2,3-dihydro-7H-dibenzo[de,h]quinolin-7-one,  
2,3-dihydro-5-methoxy-7H-dibenzo[de,h]quinolin-7-one,  
2,3-dihydro-6-hydroxy-5-methoxy-7H-dibenzo[de,h]quinolin-7-one. The  
conversion of 5,6,9-trimethoxy-7H-dibenzo[de,h]quinolin-7-one  
(menisporpphine) to 5,9-dimethoxy-7H-dibenzo[de,h]quinolin-7-one  
(bianfugecine) was discussed.

IT 28399-74-8, 5-Methoxy-7H-dibenzo[de,h]quinolin-7-one  
65543-67-1, 7H-Dibenzo[de,h]quinolin-7-one 83287-02-9,  
5,6,9-Trimethoxy-7H-dibenzo[de,h]quinolin-7-one 631914-67-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(expedient synthesis of unusual oxoisoaporphine and annelated quinoline  
derivs.)

RN 28399-74-8 CAPLUS

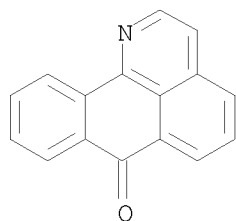
CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)



RN 65543-67-1 CAPLUS

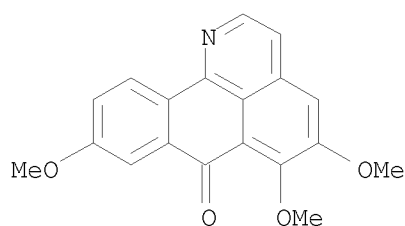
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)

10/573,931



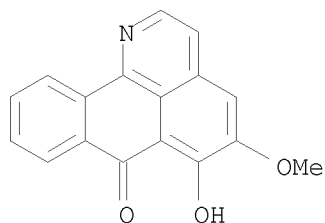
RN 83287-02-9 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,9-trimethoxy- (CA INDEX NAME)



RN 631914-67-5 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5-methoxy- (CA INDEX NAME)



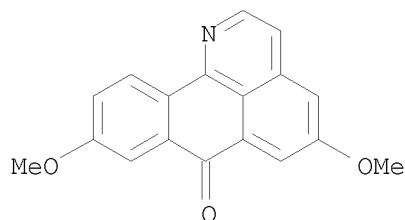
IT 96681-50-4P, 5,9-Dimethoxy-7H-dibenzo[de,h]quinolin-7-one

RL: SPN (Synthetic preparation); PREP (Preparation)

(expedient synthesis of unusual oxoisoaporphine and annelated quinoline derivs.)

RN 96681-50-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy- (CA INDEX NAME)



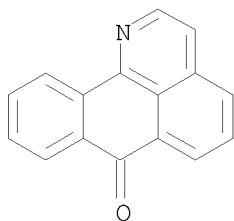
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS



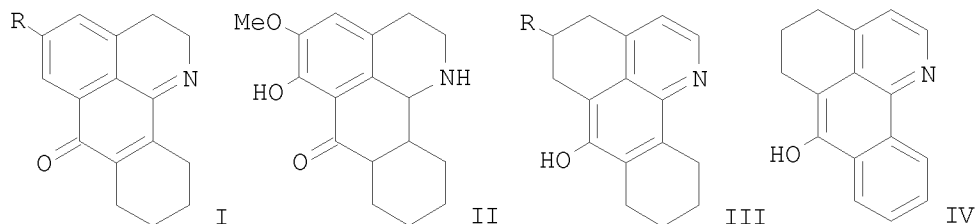
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 25 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2003:667156 CAPLUS  
 DOCUMENT NUMBER: 139:356236  
 TITLE: Crystal structure of  
 2,3,8,9,10,11-hexahydro-7H-dibenzo[de,h]quinolin-7-one, C<sub>16</sub>H<sub>15</sub>NO  
 AUTHOR(S): Sobarzo-Sanchez, E.; Cassels, B. K.; Castedo, L.;  
 Valencia-Matarranz, L.; Perez-Lourido, P.  
 CORPORATE SOURCE: Universidad de Chile. Facultad de Ciencias,  
 Departamento de Quimica, Casilla 653, Santiago, Chile  
 SOURCE: Zeitschrift fuer Kristallographie - New Crystal  
 Structures (2003), 218(2), 177-178  
 CODEN: ZKNSFT; ISSN: 1433-7266  
 PUBLISHER: Oldenbourg Wissenschaftsverlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The title compound is monoclinic, space group P2<sub>1</sub>/a, a 7.085(1), b  
 18.587(3), c 9.080(2) Å, β 95.30(2)°, Z = 4, R<sub>gt</sub>(F) =  
 0.068, wR<sub>ref</sub>(F<sub>2</sub>) = 0.239, T = 293 K. Atomic coordinates are given. The  
 structure of the mol. is largely planar. Some bond distances and torsion  
 angles are given and discussed.  
 IT 65543-67-1, Dibenzo[de,h]Quinolin-7-one  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (catalytic hydrogenation of dibenzoquinolinone in acetic acid by  
 platinum oxide)  
 RN 65543-67-1 CAPLUS  
 CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 26 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2003:512643 CAPLUS  
 DOCUMENT NUMBER: 139:365106  
 TITLE: Complete <sup>1</sup>H and <sup>13</sup>C NMR spectral assignment of  
 hydrogenated oxoisoaporphine derivatives  
 AUTHOR(S): Sobarzo-Sanchez, Eduardo; Cassels, Bruce K.; Castedo,  
 Luis  
 CORPORATE SOURCE: Department of Chemistry, Faculty of Sciences,  
 University of Chile, Santiago, Chile  
 SOURCE: Magnetic Resonance in Chemistry (2003), 41(7), 545-548  
 CODEN: MRCHEG; ISSN: 0749-1581  
 PUBLISHER: John Wiley & Sons Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:365106  
 GI

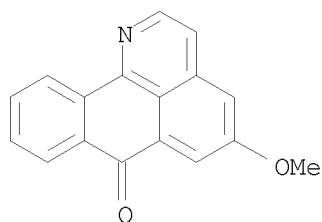


AB 2,3,8,9,10,11-Hexahydro-7H-dibenzo[de,h]quinolin-7-one (I; R = H), 5-methoxy-2,3,8,9,10,11-hexahydro-7H-dibenzo[de,h]quinolin-7-one I (R = OMe), 5-methoxy-6-hydroxy-1,2,3,7a,8,9,10,11,11a,11b-decahydro-7H-dibenzo[de,h]quinolin-7-one (II), 5-methoxy-5,6,8,9,10,11-hexahydro-4H-dibenzo[de,h]quinolin-7-ol (III; R = OMe), 5,6,8,9,10,11-hexahydro-4H-dibenzo[de,h]quinolin-7-ol III (R = H), and 5,6-dihydro-4H-dibenzo[de,h]quinolin-7-ol (IV) were prepared by catalytic hydrogenation of oxoisoaporphines or their 2,3-dihydro derivs. over PtO<sub>2</sub> in acetic acid under mild conditions. Their structures were confirmed and <sup>1</sup>H and <sup>13</sup>C NMR spectra were completely assigned using a combination of one- and two-dimensional NMR techniques.

IT 28399-74-8 65543-67-1,  
7H-Dibenzo[de,h]quinolin-7-one  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation and NMR spectral assignment of hydrogenated oxoisoaporphine derivs.)

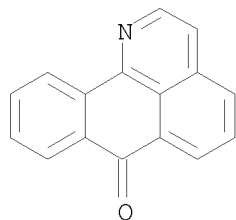
RN 28399-74-8 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)



RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)

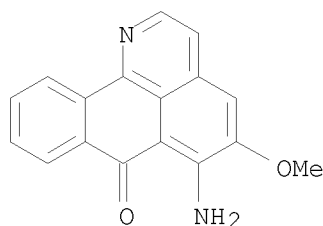


OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 27 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:851259 CAPLUS  
DOCUMENT NUMBER: 138:69919  
TITLE: Lakshminine, a New Rare Oxoisoaporphine Alkaloid from  
Sciadotenia toxifera, and Structural Revisions of  
Telazoline and Teladiazoline, Two Related  
Oxoaporphines from Telitoxicum peruvianum and T.  
glaziovii  
AUTHOR(S): Killmer, Lew; Vogt, Frederick G.; Freyer, Alan J.;  
Menachery, Mary D.; Adelman, Clark M.  
CORPORATE SOURCE: Department of Analytical Sciences, GlaxoSmithKline  
Pharmaceuticals, King of Prussia, PA, 19406-0939, USA  
SOURCE: Journal of Natural Products (2003), 66(1), 115-118  
CODEN: JNPRDF; ISSN: 0163-3864  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Lakshminine, a novel oxoisoaporphine alkaloid possessing a C-6 amine  
substituent, was isolated from a basic fraction from the woody vines  
(collected from two bush-ropes) of Sciadotenia toxifera. This compound  
represents the first documented occurrence of an oxoisoaporphine from any  
Menispermaceae species other than Menispermum dauricum. The structures of  
two related aporphine alkaloids, telazoline and teladiazoline, were  
revised on the basis of a comparison of their spectral data with that of  
lakshminine.  
IT 479669-27-7P, Lakshminine  
RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification  
or recovery); BIOL (Biological study); OCCU (Occurrence); PREP  
(Preparation)  
(lakshminine, an oxoisoaporphine alkaloid from Sciadotenia toxifera)  
RN 479669-27-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-amino-5-methoxy- (CA INDEX NAME)

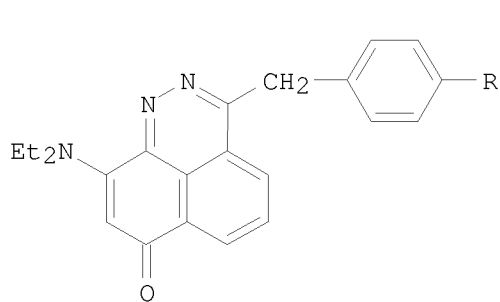


OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)  
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

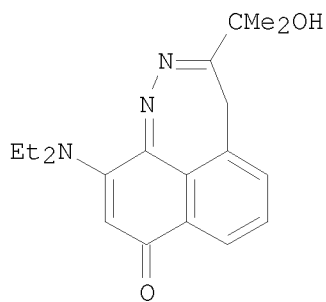
L6 ANSWER 28 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:88151 CAPLUS  
DOCUMENT NUMBER: 136:386085  
TITLE: Cyclocondensation of 5-ethynyl-1,4-naphthoquinone  
derivatives with hydrazine  
AUTHOR(S): Ivanchikova, I. D.; Myasnikova, R. N.; Shvartsberg, M.  
S.  
CORPORATE SOURCE: Institute of Chemical Kinetics and Combustion,  
Siberian Branch of the Russian Academy of Sciences,

10/573,931

SOURCE: Novosibirsk, 630090, Russia  
Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (2001), 50(9), 1668-1672  
CODEN: RCBUEY; ISSN: 1066-5285  
PUBLISHER: Kluwer Academic/Consultants Bureau  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 136:386085  
GI



I



II

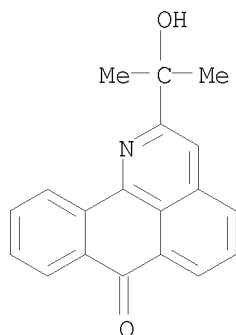
AB Condensation of 5-(arylethynyl)-3-(diethylamino)naphthoquinones with NH<sub>2</sub>NH<sub>2</sub> afforded 3-benzyl-9-(diethylamino)benzo[de]cinnolin-7-ones (I; R = H, OMe, NO<sub>2</sub>). The substituents in the Ph ring had a pronounced effect on the reaction time and the yields of benzocinnolinones and byproducts. Replacement of the arylethynyl substituent in the starting naphthoquinone by a 3-hydroxyalk-1-ynyl group leads to a change in the direction of cyclization, resulting in substituted naphtho[1,8-cd]-1,2-diazepin-8-ones, e.g., II, as condensation products.

IT 426207-03-6P

RL: BYP (Byproduct); PREP (Preparation)  
(cyclocondensation of 5-ethynyl-1,4-naphthoquinone derivs. with hydrazine)

RN 426207-03-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(1-hydroxy-1-methylethyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

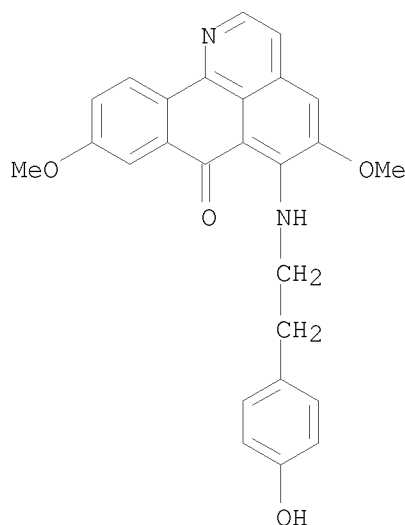
L6 ANSWER 29 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2001:450164 CAPLUS  
DOCUMENT NUMBER: 135:192854  
TITLE: Cytotoxic oxoisoaporphine alkaloids from *Menispermum dauricum*  
AUTHOR(S): Yu, Bing-Wu; Meng, Ling-Hua; Chen, Jian-Yong; Zhou, Tian-Xi; Cheng, Kin-Fai; Ding, Jian; Qin, Guo-Wei  
CORPORATE SOURCE: Shanghai Institute of Materia Medica Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China  
SOURCE: Journal of Natural Products (2001), 64(7), 968-970  
CODEN: JNPRDF; ISSN: 0163-3864  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Four new oxoisoaporphine alkaloids, daurioxoisoporphines A-D (I-IV), were isolated from the rhizomes of *Menispermum dauricum*. The structures of these alkaloids were established by spectroscopic methods. The cytotoxic evaluation of I and II is reported against four cancer cell lines.

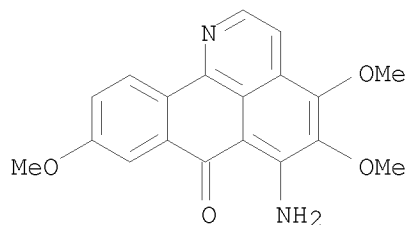
IT 356047-64-8P, Daurioxoisoporphine A 356047-65-9P, Daurioxoisoporphine B  
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
(cytotoxic oxoisoaporphine alkaloids from *Menispermum dauricum*)

RN 356047-64-8 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-[[2-(4-hydroxyphenyl)ethyl]amino]-5,9-dimethoxy- (CA INDEX NAME)

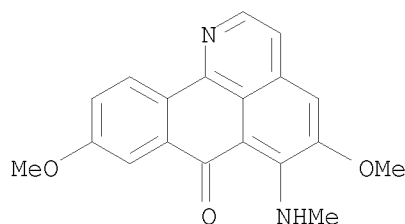


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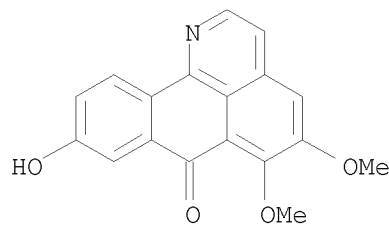
RN 356047-65-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-amino-4,5,9-trimethoxy- (CA INDEX NAME)



IT 356047-66-0P, Daurioxoisoporphine C 356047-67-1P,  
Daurioxoisoporphine D  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP  
(Properties); PUR (Purification or recovery); BIOL (Biological study);  
OCCU (Occurrence); PREP (Preparation)  
(oxoisoporphine alkaloids from *Menispermum dauricum*)  
RN 356047-66-0 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy-6-(methylamino)- (CA INDEX NAME)



RN 356047-67-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 9-hydroxy-5,6-dimethoxy- (CA INDEX NAME)

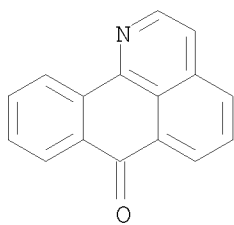


OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS  
RECORD (15 CITINGS)  
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 30 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2001:226766 CAPLUS  
DOCUMENT NUMBER: 135:196831  
TITLE: 1-Azabenzanthrone colorants  
AUTHOR(S): Sekar, N.  
CORPORATE SOURCE: Dyes Division, UDCT, Mumbai, 400 019, India

10/573,931

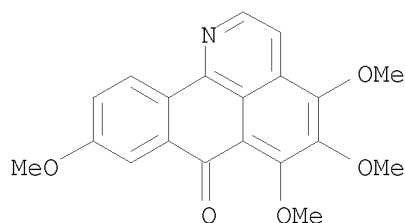
SOURCE: Colourage (2001), 48(1), 54-57  
CODEN: COLOBG; ISSN: 0010-1826  
PUBLISHER: Colour Publications Pvt. Ltd.  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English  
AB The chemical of 1-azabenzanthrone, with special reference to colorants for synthetic materials, vat dyes, and intermediates used in their synthesis is reviewed with 50 refs.  
IT 65543-67-1DP, 1-Azabenzanthrone, derivs.  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(azabenzanthrone colorants)  
RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



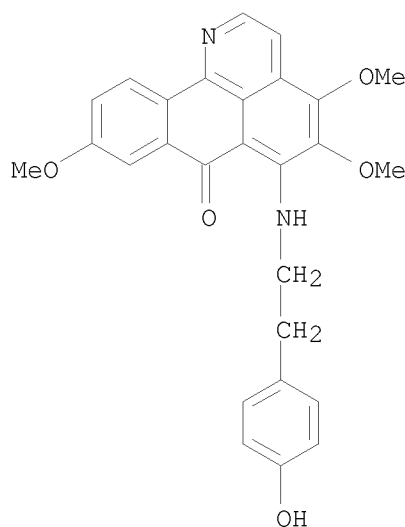
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 31 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2000:38814 CAPLUS  
DOCUMENT NUMBER: 132:178069  
TITLE: Oxoisoaporphines from Menispermum dauricum  
AUTHOR(S): Sugimoto, Yukihiro; Babiker, Hind A. A.; Inanaga, Shinobu; Kato, Masako; Isogai, Akira  
CORPORATE SOURCE: Arid Land Research Center, Tottori University, Tottori, 680-0001, Japan  
SOURCE: Phytochemistry (1999), 52(8), 1431-1435  
CODEN: PYTCAS; ISSN: 0031-9422  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Two oxoisoaporphine alkaloids, 2,3-dihydroauriporphine and tyraminoporphine, in addition to the known alkaloid dauriporphine, were isolated from Menispermum dauricum roots cultured in a medium containing ketoconazole, a cytochrome P 450 inhibitor. Structures of the alkaloids were established by spectroscopic, crystallog. and chemical methods.  
IT 88142-60-3, Dauriporphine  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)  
(isolation from Menispermum dauricum)  
RN 88142-60-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)

10/573,931



IT 259682-67-2P  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
(isolation from Menispermum dauricum and crystal structure)  
RN 259682-67-2 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-[[2-(4-hydroxyphenyl)ethyl]amino]-4,5,9-trimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)  
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

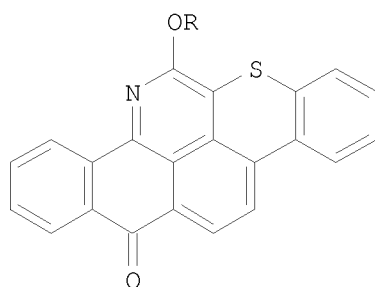
L6 ANSWER 32 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:683253 CAPLUS  
DOCUMENT NUMBER: 131:300574  
TITLE: Azathioxanthene dyes and their manufacture  
INVENTOR(S): Teruta, Takashi; Murata, Yukichi  
PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10/573,931

JP 11293134	A	19991026	JP 1998-93178	19980406
JP 3780693	B2	20060531		
PRIORITY APPLN. INFO.:			JP 1998-93178	19980406
OTHER SOURCE(S):	MARPAT	131:300574		
GI				



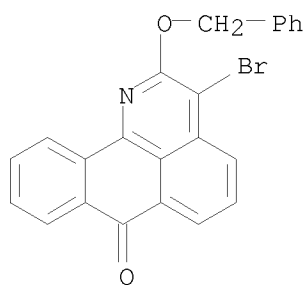
I

AB Azathioxanthene compound I (R = substituted alkyl), which is useful as fluorescent dye with high brightness and fastness, is synthesized by reacting 2-alkoxy-1-aza-3-bromobenzoanthrone with o-aminothiophenol in the presence of a base in an inert solvent followed by converting to the corresponding diazo compound and cyclization. Benzyloxy derivative of I was prepared and used as coloring agent for polymethyl methacrylate resin.

IT 245092-13-1 245092-14-2 245092-15-3  
245092-16-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of azathioxanthene dyes)

RN 245092-13-1 CAPLUS

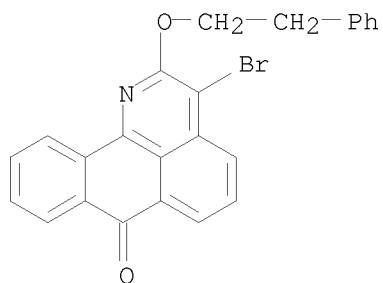
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(phenylmethoxy)- (CA INDEX NAME)



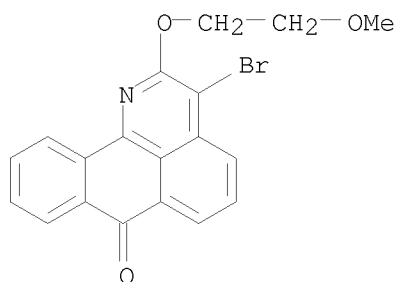
RN 245092-14-2 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(2-phenylethoxy)- (CA INDEX NAME)

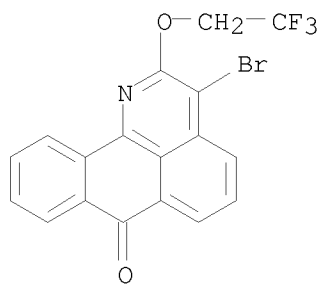
10/573,931



RN 245092-15-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(2-methoxyethoxy)- (CA INDEX NAME)

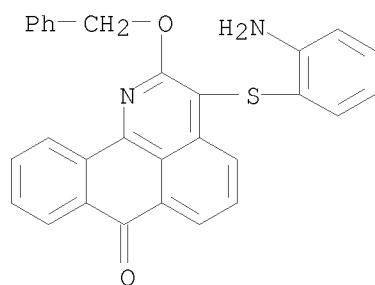


RN 245092-16-4 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(2,2,2-trifluoroethoxy)- (CA INDEX NAME)



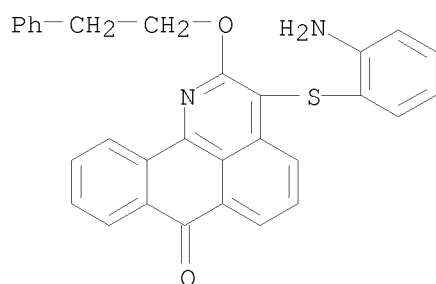
IT 247116-58-1P 247116-59-2P 247116-61-6P  
247116-62-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of azathioxanthene dyes)  
RN 247116-58-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-2-(phenylmethoxy)- (CA INDEX NAME)

10/573,931



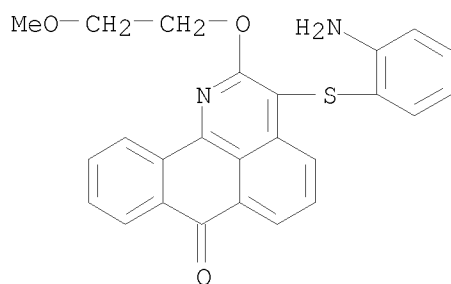
RN 247116-59-2 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-2-(2-phenylethoxy)-  
(CA INDEX NAME)



RN 247116-61-6 CAPLUS

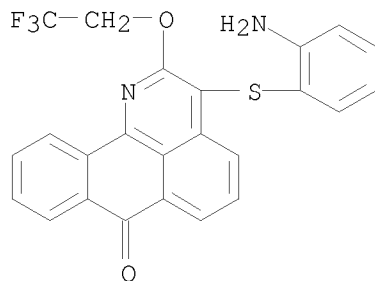
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-2-(2-methoxyethoxy)- (CA INDEX NAME)



RN 247116-62-7 CAPLUS

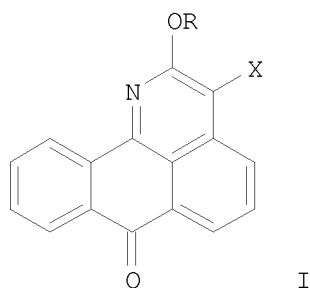
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-2-(2,2,2-trifluoroethoxy)- (CA INDEX NAME)

10/573,931



L6 ANSWER 33 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:631222 CAPLUS  
DOCUMENT NUMBER: 131:258447  
TITLE: Dibenzquinolinone dyes and manufacturing methods therefor  
INVENTOR(S): Teruta, Takashi; Murata, Yukichi  
PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan  
SOURCE: Jpn. Kokai Tokyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11269396	A	19991005	JP 1998-92191	19980323
JP 3769118	B2	20060419		
PRIORITY APPLN. INFO.:			JP 1998-92191	19980323
OTHER SOURCE(S):	MARPAT	131:258447		
GI				



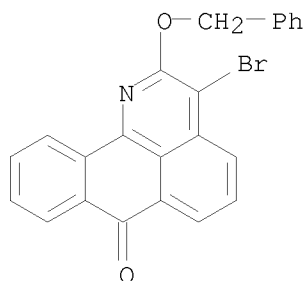
AB Yellow fluorescent dyes I are prepared, where R = substituted alkyl groups and X = H or halogens. Thus, I (R = benzyl, X = Br) was prepared, mixed (0.05 g) with 100 g Acrypet MD, pelletized, and injection molded to prepare a plate.

IT 245092-13-1P 245092-14-2P 245092-15-3P  
245092-16-4P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(yellow fluorescent dibenzoquinolinone dyes and manufacturing methods therefor)

10/573,931

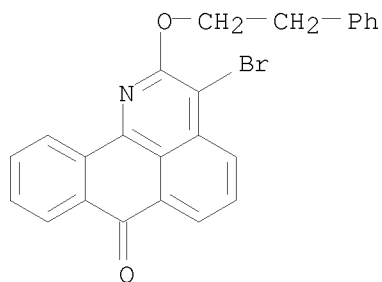
RN 245092-13-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(phenylmethoxy)- (CA INDEX NAME)



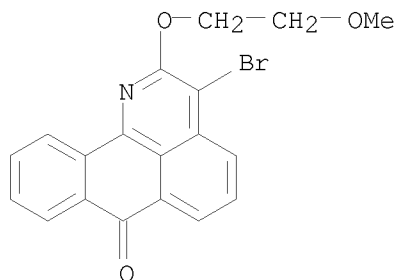
RN 245092-14-2 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(2-phenylethoxy)- (CA INDEX NAME)



RN 245092-15-3 CAPLUS

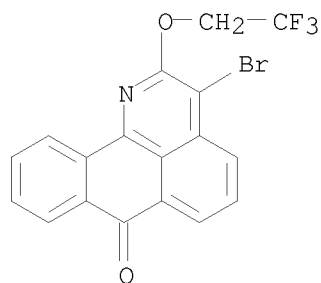
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(2-methoxyethoxy)- (CA INDEX NAME)



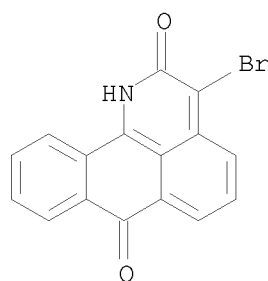
RN 245092-16-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(2,2,2-trifluoroethoxy)- (CA INDEX NAME)

10/573,931

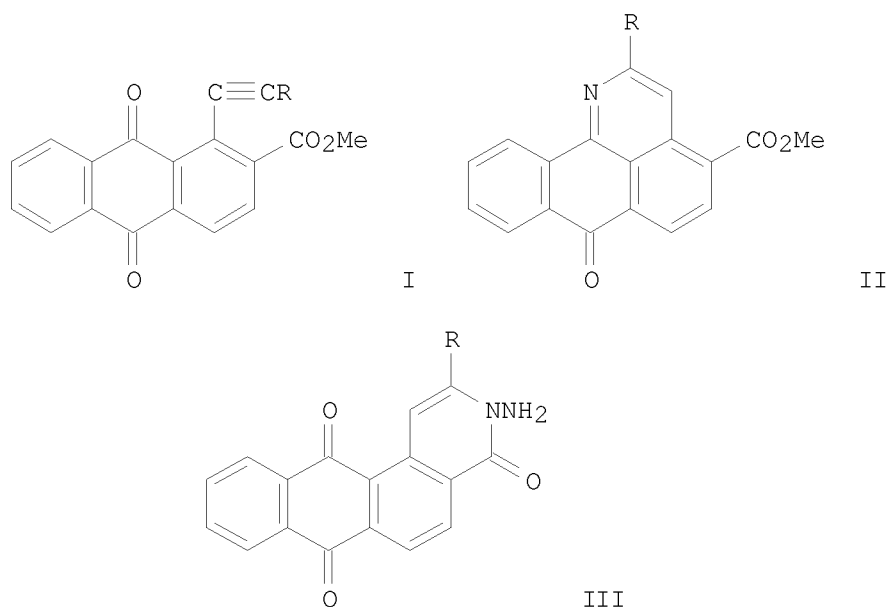


IT 31715-46-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(yellow fluorescent dibenzoquinolinone dyes and manufacturing methods therefor)  
RN 31715-46-5 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-bromo- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 34 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:65967 CAPLUS  
DOCUMENT NUMBER: 130:182345  
TITLE: Reactions of methyl  
1-alkynyl-9,10-anthraquinone-2-carboxylates with  
hydrazine  
AUTHOR(S): Ivanchikova, I. D.; Myasnikova, R. N.; Shvartsberg, M.  
S.  
CORPORATE SOURCE: Institute Chemical Kinetics and Combustion, Siberian  
Branch Russian Academy Sciences, Novosibirsk, 630090,  
Russia  
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya  
Akademii Nauk, Seriya Khimicheskaya) (1998), 47(10),  
1975-1979  
CODEN: RCBUEY; ISSN: 1066-5285  
PUBLISHER: Consultants Bureau  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

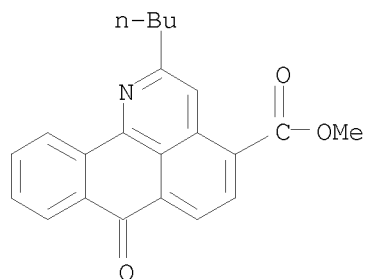


AB The title esters (I; R = Bu, Ph, CH<sub>2</sub>OPh, H) reacted with NH<sub>2</sub>NH<sub>2</sub> in ethanol at 80° to give similar amts. of 7H-dibenzo[de,h]quinolin-7-ones (II) and 3,4-dihydro-3-aminonaphtho[2,3-f]isoquinoline-4,7,12-triones (III). The main route of the reaction apparently included nucleophilic addition of hydrazine to the triple bond of the ester, followed by intramol. cyclization of the adduct with either the carbonyl or the methoxycarbonyl groups involved.

IT 155269-12-8P 220632-10-0P 220632-11-1P  
220632-12-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 155269-12-8 CAPLUS

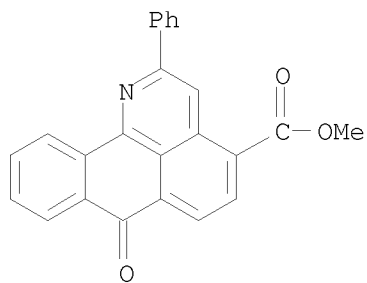
CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 2-butyl-7-oxo-, methyl ester  
(CA INDEX NAME)



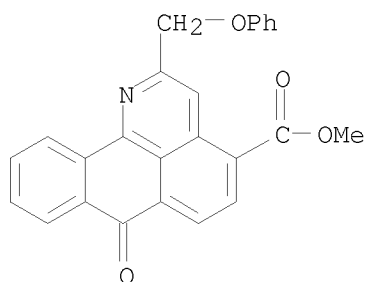
RN 220632-10-0 CAPLUS

CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 7-oxo-2-phenyl-, methyl ester  
(CA INDEX NAME)

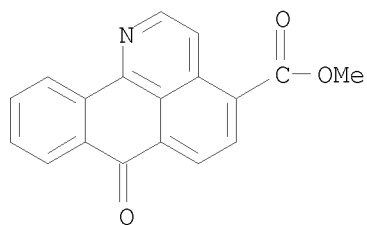
10/573,931



RN 220632-11-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 7-oxo-2-(phenoxymethyl)-,  
methyl ester (CA INDEX NAME)



RN 220632-12-2 CAPLUS  
CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 7-oxo-, methyl ester (CA  
INDEX NAME)

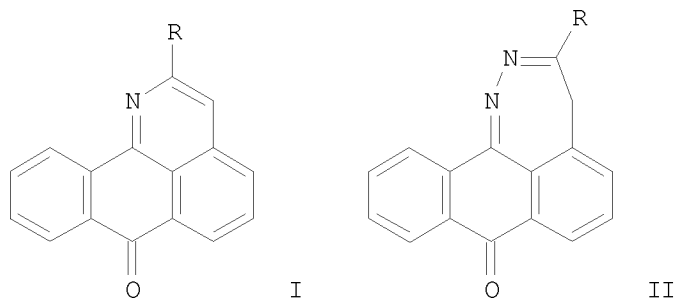


OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)  
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 35 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:65966 CAPLUS  
DOCUMENT NUMBER: 130:182344  
TITLE: A novel heterocyclization of  
1-alkynyl-9,10-anthraquinones  
AUTHOR(S): Shvartsberg, M. S.; Ivanchikova, I. D.; Vasilevsky, S.  
F.  
CORPORATE SOURCE: Inst. Chemical Kinetics and Combustion, Siberian  
Branch Russian Academy Sciences, Novosibirsk, 630090,  
Russia



SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (1998), 47(10), 1971-1974  
 CODEN: RCBUEY; ISSN: 1066-5285  
 PUBLISHER: Consultants Bureau  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI

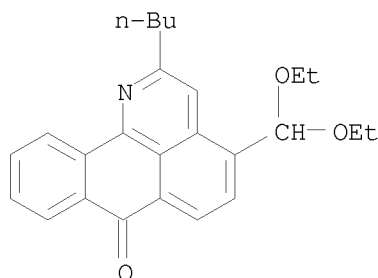


AB 1-Alkynyl-9,10-anthraquinones react with an excess of  $\text{NH}_2\text{NH}_2$  at  $80-115^\circ$  to give a mixture of 7H-dibenzo[de,h]quinolin-7-ones (I; R = Bu, Ph,  $\text{CH}_2\text{OPh}$ ) and anthra[9,1-cd]-1,2-diazepin-8-ones (II, same R). II undergo reductive contraction of the seven-membered ring to give I. Bulky substituents in position 2 of the initial alkynylanthraquinones prevent the formation of the seven-membered heterocycle. A scheme of the cyclocondensation was proposed.

IT 155269-13-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (heterocyclization of 1-alkynyl-9,10-anthraquinones)

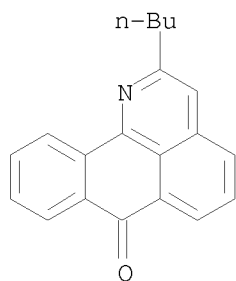
RN 155269-13-9 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl-4-(diethoxymethyl)- (CA INDEX NAME)



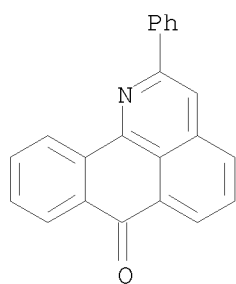
IT 155269-09-3P      155269-10-6P      155269-11-7P  
 220597-83-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (heterocyclization of 1-alkynyl-9,10-anthraquinones)  
 RN 155269-09-3 CAPLUS  
 CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl- (CA INDEX NAME)

10/573,931



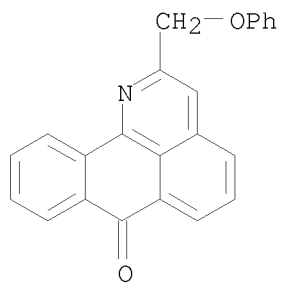
RN 155269-10-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-phenyl- (CA INDEX NAME)



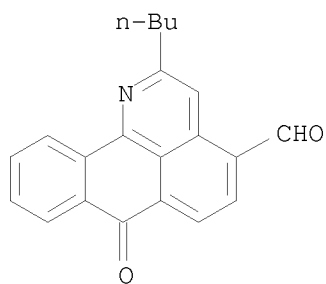
RN 155269-11-7 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(phenoxyethyl)- (CA INDEX NAME)



RN 220597-83-1 CAPLUS

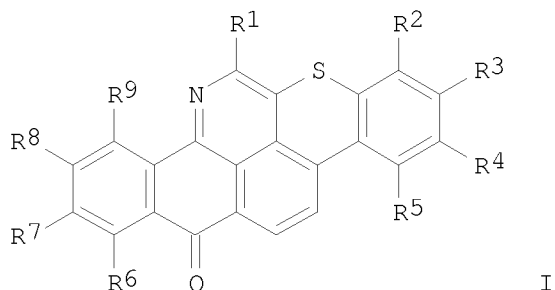
CN 7H-Dibenzo[de,h]quinoline-4-carboxaldehyde, 2-butyl-7-oxo- (CA INDEX NAME)



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OS.CITING REF COUNT:      3      THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD
                                (3 CITINGS)
REFERENCE COUNT:          11      THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
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ACCESSION NUMBER: 1998:685334 CAPLUS  
 DOCUMENT NUMBER: 129:337482  
 ORIGINAL REFERENCE NO.: 129:68653a,68656a  
 TITLE: Organic electroluminescent device containing  
 azabenzothioxanthene derivative  
 INVENTOR(S): Ogata, Tomoyuki; Sato, Yoshiharu; Murata, Yukichi  
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10284251	A	19981023	JP 1997-88172	19970407
JP 3760556	B2	20060329		
PRIORITY APPLN. INFO.:			JP 1997-88172	19970407
OTHER SOURCE(S):	MARPAT	129:337482		
GI				



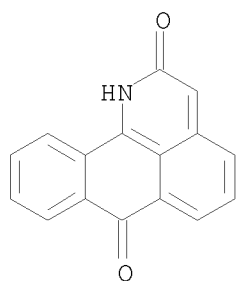
AB In the device, a hole-transporting layer and/or an electron-transporting layer contain a azabenzothioxanthene derivative I (R1-9 = H, halo, CN, NO2, OH, CO2H, alkyl, cycloalkyl, aralkyl, alkenyl, amino, amido, alkoxy, cycloalkyloxy, alkoxycarbonyl, aromatic hydrocarbyl, heterocyclic group; R1-9 may be substituted). The device showed high luminescent efficiency at visible light region.

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IT      31293-07-9P, 1H-Dibenzo[de,h]quinoline-2,7-dione
        31715-46-5P      31715-47-6P      214628-45-2P
        214628-46-3P      214628-47-4P
        RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);
        RACT (Reactant or reagent)
        (electroluminescent device containing azabenzothioxanthene derivative
dopant)
RN      31293-07-9      CAPLUS
CN      1H-Dibenzo[de,h]quinoline-2,7-dione      (CA INDEX NAME)

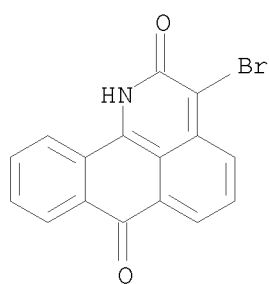
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10/573,931



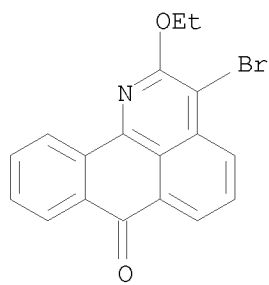
RN 31715-46-5 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-bromo- (CA INDEX NAME)



RN 31715-47-6 CAPLUS

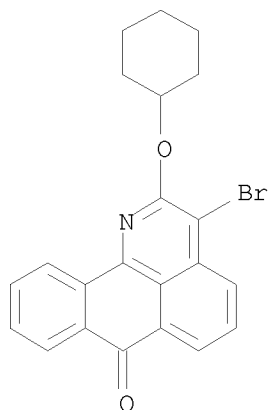
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-ethoxy- (CA INDEX NAME)



RN 214628-45-2 CAPLUS

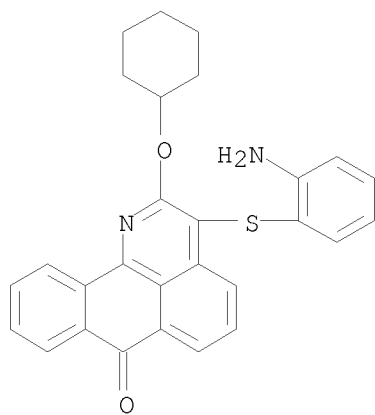
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(cyclohexyloxy)- (CA INDEX NAME)

10/573,931



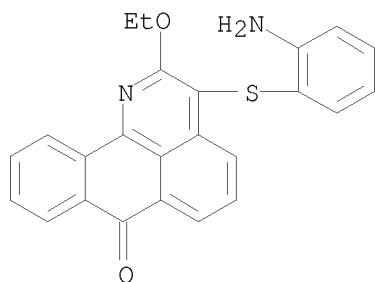
RN 214628-46-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-2-(cyclohexyloxy)-  
(CA INDEX NAME)



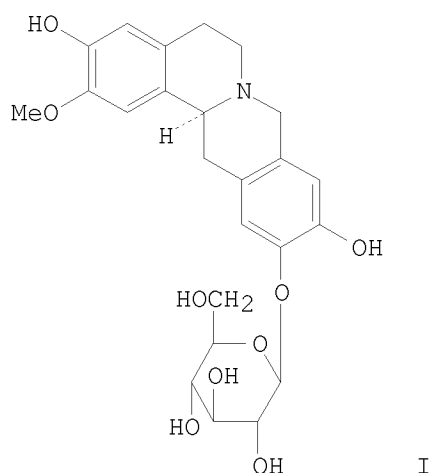
RN 214628-47-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-2-ethoxy- (CA  
INDEX NAME)

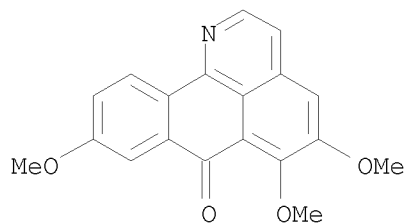


10/573,931

DOCUMENT NUMBER: 121:5069  
ORIGINAL REFERENCE NO.: 121:1119a,1122a  
TITLE: Dauricoside, a new glycosidal alkaloid having an inhibitory activity against blood-platelet aggregation  
AUTHOR(S): Hu, Shumin; Xu, Suixu; Yao, Xinsheng; Cui, Cheng Bin; Tezuka, Yasuhiro; Kikuchi, Tohru  
CORPORATE SOURCE: Shenyang Coll. Pharm., Shenyang, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (1993), 41(10), 1866-8  
CODEN: CPBTAL; ISSN: 0009-2363  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

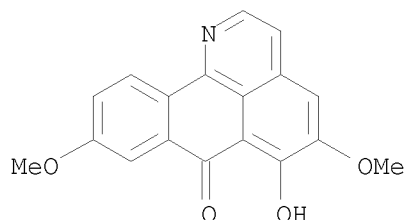


AB Dauricoside (I), a new glycosidal alkaloid, was isolated from the rhizomes of *Menispermum dauricum* DC. along with dauricine (2), daurisoline (3), dauriporphine (4), menisoporphine (5), and 6-O-demethylmenisporphine (6), and its structure was determined by means of spectroscopic methods. Compds. I, 2, and 3 inhibited blood-platelet aggregation induced by ADP (ADP).  
IT 83287-02-9 83287-03-0 88142-60-3,  
Dauriporphine  
RL: BIOL (Biological study)  
(from *Menispermum dauricum* rhizomes)  
RN 83287-02-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,9-trimethoxy- (CA INDEX NAME)

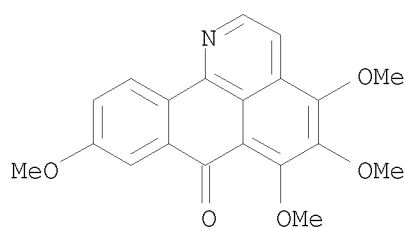


RN 83287-03-0 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5,9-dimethoxy- (CA INDEX NAME)

10/573,931

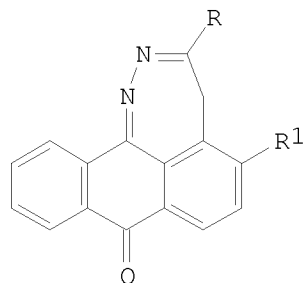


RN 88142-60-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)

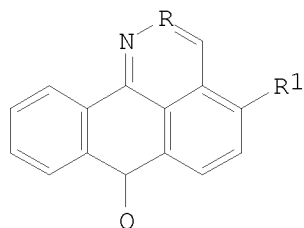


OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS  
RECORD (20 CITINGS)

L6 ANSWER 38 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1994:323547 CAPLUS  
DOCUMENT NUMBER: 120:323547  
ORIGINAL REFERENCE NO.: 120:56929a,56932a  
TITLE: Acetylenic compounds as intermediates in heterocyclic  
synthesis: reaction of 1-acetylenylantraquinones with  
hydrazine  
AUTHOR(S): Shvartsberg, Mark S.; Ivanchikova, Irena D.;  
Vasilevsky, Sergel F.  
CORPORATE SOURCE: Inst. Chem. Kinet. Combust., Novosibirsk, 630090,  
Russia  
SOURCE: Tetrahedron Letters (1994), 35(13), 2077-80  
CODEN: TELEAY; ISSN: 0040-4039  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 120:323547  
GI



I



II

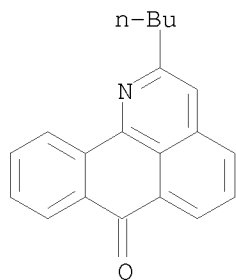
10/573,931

AB Reaction of 1-acetylenic derivs. of anthraquinone with hydrazine affording substituted 4H-anthra[9,1-cd]-1,2-diazepin-8-ones I [R = alkyl, phenyl; R1 = H, CO<sub>2</sub>Me, CH(OEt)<sub>2</sub>] and 7H-dibenzo[de,h]quinolin-7-ones II (same R, R1) is reported.

IT 155269-09-3P 155269-10-6P 155269-11-7P  
155269-12-8P 155269-13-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

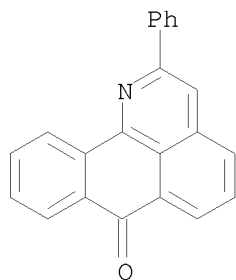
RN 155269-09-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl- (CA INDEX NAME)



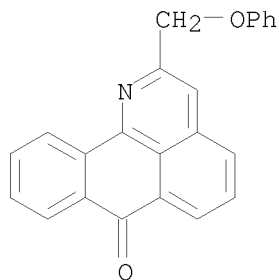
RN 155269-10-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-phenyl- (CA INDEX NAME)



RN 155269-11-7 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(phenoxyethyl)- (CA INDEX NAME)

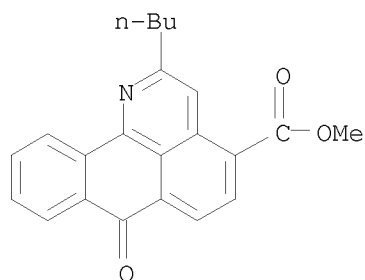


RN 155269-12-8 CAPLUS

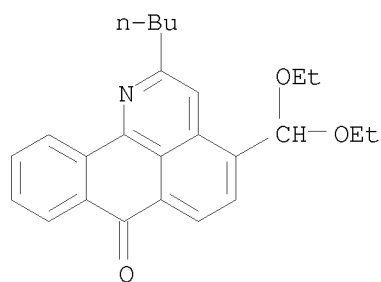
CN 7H-Dibenzo[de,h]quinoline-4-carboxylic acid, 2-butyl-7-oxo-, methyl ester  
(CA INDEX NAME)



10/573,931

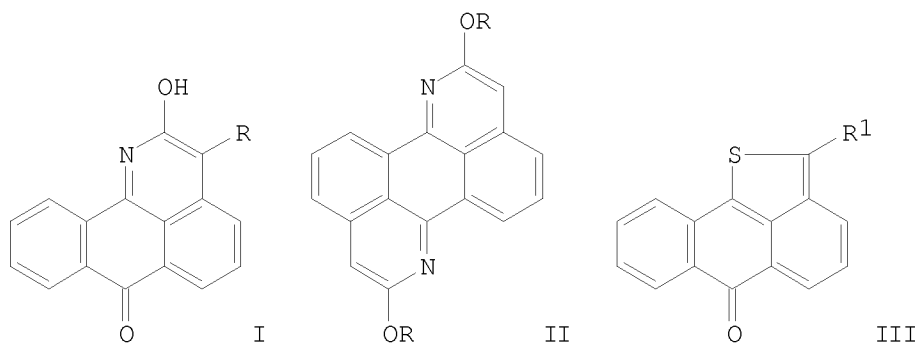


RN 155269-13-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-butyl-4-(diethoxymethyl)- (CA INDEX  
NAME)



OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS  
RECORD (13 CITINGS)

L6 ANSWER 39 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1994:77195 CAPLUS  
DOCUMENT NUMBER: 120:77195  
ORIGINAL REFERENCE NO.: 120:13888h,13889a  
TITLE: Reaction of  $\alpha$ -halo- and  
 $\alpha$ -nitroanthraquinones with anions of CH acids.  
II. Peri-cyclization in reactions with nitriles  
AUTHOR(S): Gorelik, M. V.; Titova, S. P.; Kanor, M. A.  
CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod. Krasitelei,  
Moscow, Russia  
SOURCE: Zhurnal Organicheskoi Khimii (1992), 28(11), 2301-9  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
GI



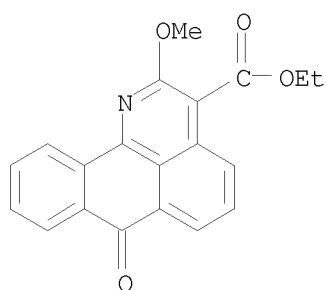
AB 1-Cyanomethylantraquinones, obtained from 1-halo- or 1-nitroanthraquinones and EtO<sub>2</sub>CCH<sub>2</sub>CN and PhCH<sub>2</sub>CN, are transformed to 3-substituted 2-hydroxy-7H-dibenzo[de,h]quinoline-7-ones I (R = Me, Et) as a result of hydrolysis of the nitrile group and cyclization. The novel anthra[9,1-bc:10,5-b'c']dipyridines II are obtained from 1,5-bis(cyanomethyl)anthraquinones. Reaction of 1-halo- or 1-nitroanthraquinone with excess CH<sub>2</sub>(CN)<sub>2</sub> and EtO<sub>2</sub>CCH<sub>2</sub>CN in polar aprotic solvents containing KOH gives high yields of 2-amino-1,3-dicyano- and 2-amino-1,3-bis (ethoxycarbonyl)benzanthrone. Reaction of 1-cyanomethylantraquinones with H<sub>2</sub>S leads to 2-substituted-6H-anthra[9,1-bc]thiophen-6-ones III (R<sub>1</sub> = CO<sub>2</sub>Et, Ph), as a result, probably, of closing the thiopyran ring and recyclization.

IT 152027-96-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclization of)

RN 152027-96-8 CAPLUS

CN 7H-Dibenzo[de,h]quinoline-3-carboxylic acid, 2-methoxy-7-oxo-, ethyl ester  
(CA INDEX NAME)



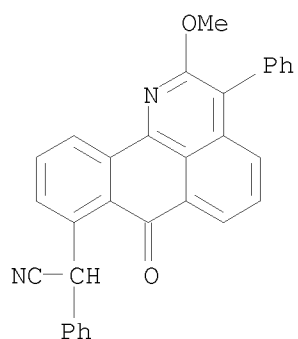
IT 152028-02-9P                      152028-04-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oxidation of)

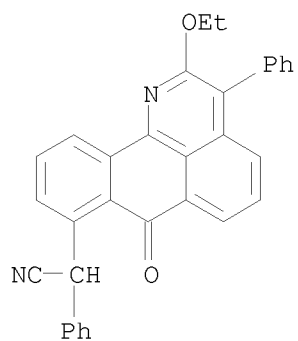
RN 152028-02-9 CAPLUS

CN 7H-Dibenzo[de,h]quinoline-8-acetonitrile,  
2-methoxy-7-oxo- $\alpha$ ,3-diphenyl- (CA INDEX NAME)

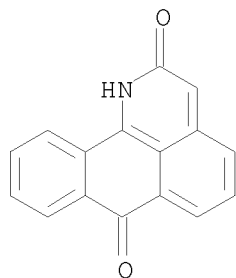
10/573,931



RN 152028-04-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinoline-8-acetonitrile,  
2-ethoxy-7-oxo- $\alpha$ ,3-diphenyl- (CA INDEX NAME)

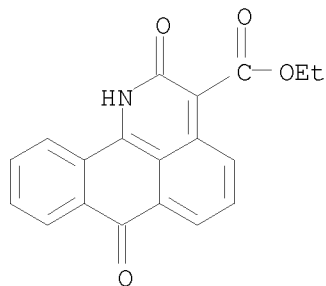


IT 31293-07-9P, 1H-Dibenzo[de,h]quinoline-2,7-dione  
120346-99-8P 120347-00-4P 152027-89-9P  
152027-90-2P 152027-91-3P 152028-05-2P  
152028-06-3P 152028-09-6P 152028-10-9P  
152028-11-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 31293-07-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)

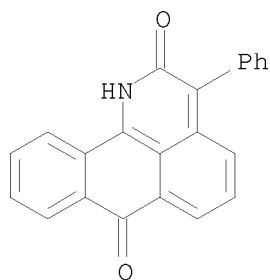


RN 120346-99-8 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-3-carboxylic acid, 2,7-dihydro-2,7-dioxo-, ethyl  
ester (CA INDEX NAME)

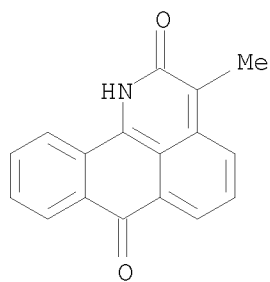
10/573,931



RN 120347-00-4 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-phenyl- (CA INDEX NAME)

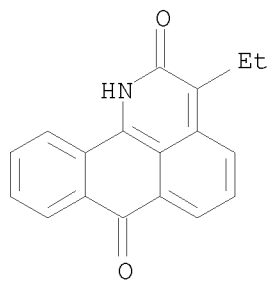


RN 152027-89-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-methyl- (CA INDEX NAME)



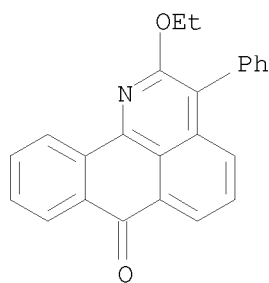
RN 152027-90-2 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-ethyl- (CA INDEX NAME)

10/573,931



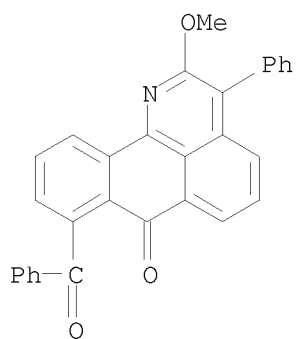
RN 152027-91-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-ethoxy-3-phenyl- (CA INDEX NAME)



RN 152028-05-2 CAPLUS

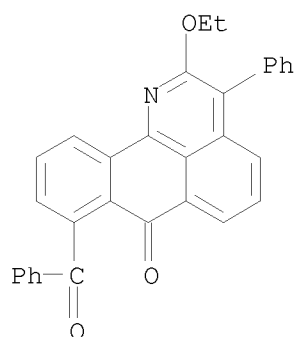
CN 7H-Dibenzo[de,h]quinolin-7-one, 8-benzoyl-2-methoxy-3-phenyl- (CA INDEX NAME)



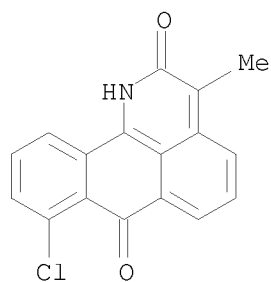
RN 152028-06-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 8-benzoyl-2-ethoxy-3-phenyl- (CA INDEX NAME)

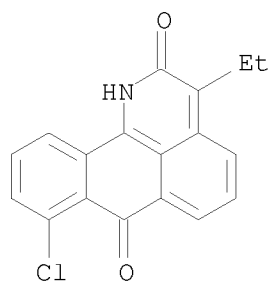
10/573,931



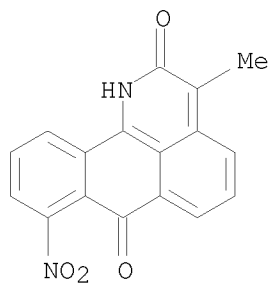
RN 152028-09-6 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 8-chloro-3-methyl- (CA INDEX NAME)



RN 152028-10-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 8-chloro-3-ethyl- (CA INDEX NAME)



RN 152028-11-0 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-methyl-8-nitro- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

L6 ANSWER 40 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:30718 CAPLUS

DOCUMENT NUMBER: 120:30718

ORIGINAL REFERENCE NO.: 120:5801a,5804a

TITLE: Reaction of  $\alpha$ -halo- and  $\alpha$ -nitroanthraquinones with CH-acid anions. IV.  
Reaction of 1-nitroanthraquinone-2-carboxylic acid with ethyl cyanoacetate and malononitrile

AUTHOR(S): Gorelik, M. V.; Lomzakova, V. I.

CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod Krasitelei,  
Moscow, Russia

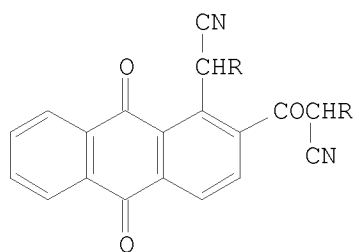
SOURCE: Zhurnal Organicheskoi Khimii (1992), 28(12), 2541-4  
CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal

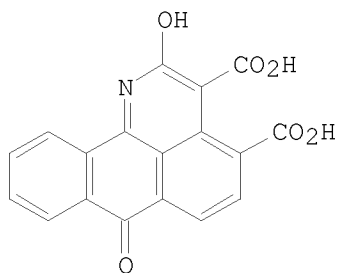
LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 120:30718

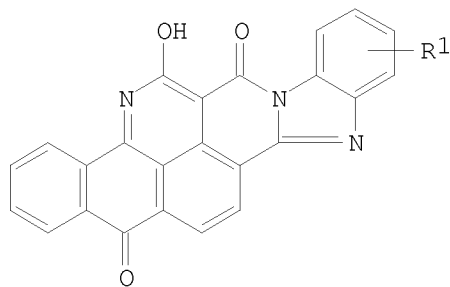
GI



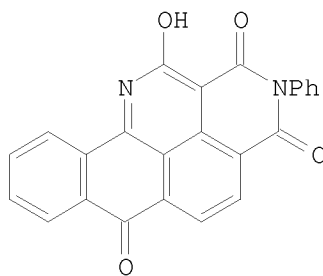
I



II



III



IV

AB The title reaction in DMSO containing KOH at 80° gave 60-90% adducts I

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(R = CO<sub>2</sub>Et, cyano, resp.), which cyclized in concentrated H<sub>2</sub>SO<sub>4</sub> at 75% to give 93-98% dibenzoquinolinonedicarboxylic acid II. II underwent cyclocondensation reaction with 3,4-(H<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>R<sub>1</sub> (R<sub>1</sub> = H, Me, Cl) to give heptacyclic products III (same R<sub>1</sub>) and with PhNH<sub>2</sub> to give 79% phenylimide IV. IV was also prepared in 96% yield directly from the anilide of the title acid and NCCH<sub>2</sub>CO<sub>2</sub>Et in DMSO containing KOH at 50°.

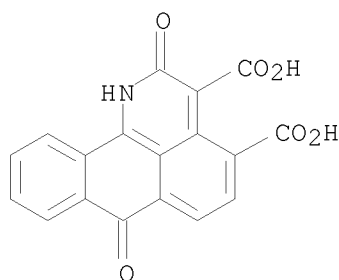
IT 151509-18-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclocondensation reactions of, with phenylenediamines and with aniline)

RN 151509-18-1 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-3,4-dicarboxylic acid, 2,7-dihydro-2,7-dioxo-  
(CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L6 ANSWER 41 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:567656 CAPLUS

DOCUMENT NUMBER: 117:167656

ORIGINAL REFERENCE NO.: 117:28895a,28898a

TITLE: Minor alkaloids of *Sinomenium acutum* (Thunb.) Rehd. et Wils

AUTHOR(S): Chen, Yayan; Qiu, Cuichang; Shen, Li; Gao, Congyuan; Qiao, Liang; Wang, Dong

CORPORATE SOURCE: Dep. Phytochem., Beijing Med. Univ., Beijing, Peop. Rep. China

SOURCE: Beijing Yike Daxue Xuebao (1991), 23(3), 235-7

CODEN: BYDXEV; ISSN: 1000-1530

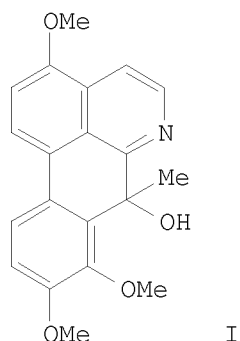
DOCUMENT TYPE: Journal

LANGUAGE: Chinese

GI



10/573,931

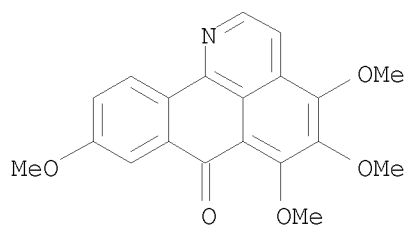


AB Four minor alkaloids were isolated from the rhizome of *Sinomenium acutum* (Thun b.) Rehd. et Wils. Three of them were identified as 8,14-dihydrosalutaridine, stepharanine and bianfugenine. The fourth is a new alkaloid, and named sinomendine (I). Its structure was 3,8,9-trimethoxy-7-hydroxy-7-methylaporphine.

IT 88142-60-3, Bianfugenine  
RL: BIOL (Biological study)  
(from *Sinomenium acutum* rhizome)

RN 88142-60-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L6 ANSWER 42 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:6266 CAPLUS

DOCUMENT NUMBER: 114:6266

ORIGINAL REFERENCE NO.: 114:1231a,1234a

TITLE: Manganese(III) acetate-induced formation of a fused, chloro-substituted  $\beta$ -lactam derivative from a chloroacetamide

AUTHOR(S): Bremner, John B.; Jaturonrusmee, Wasna

CORPORATE SOURCE: Dep. Chem., Univ. Tasmania, Hobart, 7001, Australia

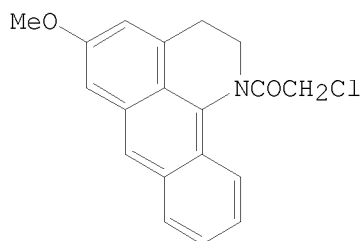
SOURCE: Australian Journal of Chemistry (1990), 43(8), 1461-7  
CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

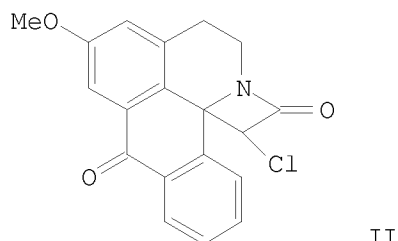
LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:6266

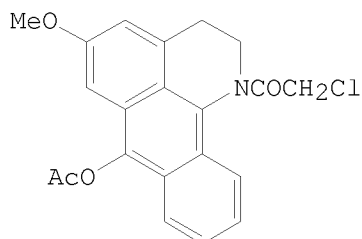
GI



I



II



V

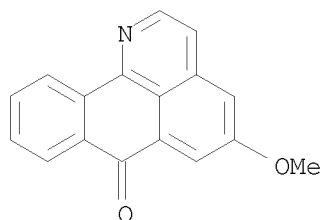
AB Reaction of 1-chloroacetyl-5-methoxy-2,3-dihydro-1H-dibenzo[de,h]quinoline I with  $Mn(OAc)_3$  in acetic acid at  $50^\circ$  gave the novel fused spiro derivative 11-chloro-4-methoxy-1,2-dihydro-6H-azeto[2,1-j]dibenzo[de,h]quinoline-6,12(11H)-dione (II) in 21% yield, together with 5-methoxy-7H-dibenzo[de,h]quinolin-7-one (III), 5-methoxy-2,3-dihydro-7H-dibenzo[de,h]quinolin-7-one (IV), and 1-chloroacetyl-5-methoxy-2,3-dihydro-1H-dibenzo[de,h]quinolin-7-y] ethanoate V in 1, 3 and 44% yield resp. V is shown to be a precursor of II, III and IV.

IT 28399-74-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 28399-74-8 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L6 ANSWER 43 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:5743 CAPLUS

DOCUMENT NUMBER: 114:5743

ORIGINAL REFERENCE NO.: 114:1135a

TITLE: Structure determination by MS, NMR, and UV spectra of  
bromo and nitro derivatives of 1-azabenzanthrone

AUTHOR(S): Ueda, Toyotoshi; Abliz, Zeper; Sato, Munehiro;  
Nishimura, Manabu; Iwashima, Satoshi; Aoki, Junji;  
Kan, Teruo; Matsunaga, Shunyo; Tanaka, Reiko

10/573,931

CORPORATE SOURCE: Dep. Chem., Meisei Univ., Tokyo, 191, Japan  
SOURCE: Journal of Molecular Structure (1990), 224, 313-22  
CODEN: JMOSB4; ISSN: 0022-2860

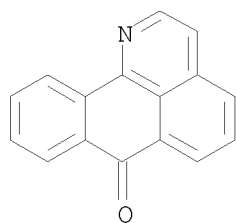
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB 3-Bromo-1-azabenzanthrone and 9-nitro-1-azabenzanthrone were identified by their mass, <sup>1</sup>H (H-H COSY) and <sup>13</sup>C (ADEPT) NMR, and UV spectra. The position of the nitro group was confirmed by mass and UV spectra of 9-nitro-1-azabenzanthrone derivs.: two isomers of pyridino-1-azabenzanthrones. Solvent effects on electrophilic reactions of azaobenzanthrone were discussed.

IT 65543-67-1, 1-Azabenzanthrone  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(electrophilic substitution reactions of, solvent effects on)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)

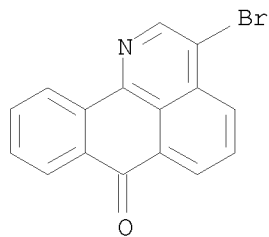


IT 57669-37-1, 3-Bromo-1-azabenzanthrone 131023-51-3,  
9-Nitro-1-azabenzanthrone

RL: PRP (Properties)  
(mol. structure and spectra of)

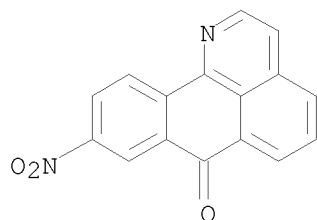
RN 57669-37-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo- (CA INDEX NAME)



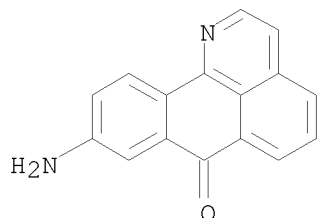
RN 131023-51-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 9-nitro- (CA INDEX NAME)



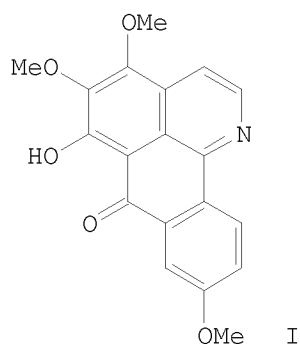
10/573,931

IT 131023-54-6P, 9-Amino-1-azabenzanthrone  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and Skraup reaction of)  
RN 131023-54-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 9-amino- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

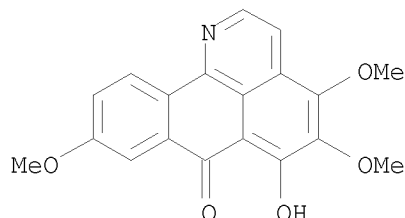
L6 ANSWER 44 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1990:455823 CAPLUS  
DOCUMENT NUMBER: 113:55823  
ORIGINAL REFERENCE NO.: 113:9377a,9380a  
TITLE: A novel oxoisoaporphine alkaloid from the rhizome of  
Menispermum dauricum  
AUTHOR(S): Zhao, Shouxun; Ye, Wencai; Tan, Ninghua; Zhao, Haoru;  
Xia, Zuncheng  
CORPORATE SOURCE: Dep. Phytochem., China Pharm. Univ., Nanjing, Peop.  
Rep. China  
SOURCE: Zhongguo Yaoke Daxue Xuebao (1989), 20(5), 312  
CODEN: ZHYXE9; ISSN: 1000-5048  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB A new oxoisoaporphine alkaloid (I) was isolated from the rhizome of M.  
dauricum (Menispermaceae). Its structure was  
6-hydroxy-4,5,9-trimethoxy-7H-dibenzene[de,h]-quinoline-7-one. It is  
named dauriporphinoline.  
IT 100009-82-3, Dauriporphinoline  
RL: BIOL (Biological study)  
(from Menispermum dauricum rhizome)

10/573,931

RN 100009-82-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-4,5,9-trimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L6 ANSWER 45 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:454063 CAPLUS

DOCUMENT NUMBER: 113:54063

ORIGINAL REFERENCE NO.: 113:9041a,9044a

TITLE: Mutagenicity of isoquinoline alkaloids, especially of the aporphine type

AUTHOR(S): Nozaka, Tomio; Watanabe, Fujio; Tadaki, Shinichi; Ishino, Masazo; Morimoto, Isao; Kunitomo, Junichi; Ishii, Hisashi; Natori, Shinsaku

CORPORATE SOURCE: Saitama Inst. Public Health, Urawa, 338, Japan

SOURCE: Mutation Research, Genetic Toxicology Testing (1990), 240(4), 267-79

CODEN: MRGTE4; ISSN: 0165-1218

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The mutagenicity of 44 isoquinoline alkaloids was tested in Salmonella typhimurium TA100 and TA98 in the presence or absence of S9 mix. The alkaloids tested included compds. from the isoquinoline, benzylisoquinoline, bisbenzylisoquinoline, monoterpene isoquinoline, berberine, morphinane, hasubanan, benzo[c]phenanthridine, and aporphine groups. Among the alkaloids tested, liriodenine was the most potent mutagen for TA100 and roemerine was the most potent for TA98. A clear structure-mutagenicity relation was observed in a series of aporphine alkaloids (aporphine, dehydroaporphine, 7-oxoaporphine, and 4,5-dioxoaporphine), and 10,11-nonsubstituted aporphines were suggested to exert their mutagenicity through metabolic activation of the 10,11 positions, possibly as the 10,11-epoxides.

IT 83287-02-9, Menisporphine 88741-67-7

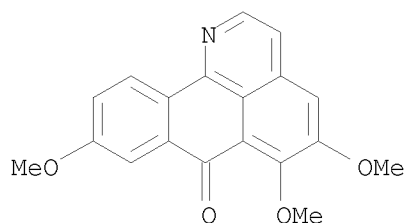
88741-68-8 96681-50-4, Bianfugecine

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (mutagenicity of, in Salmonella typhimurium)

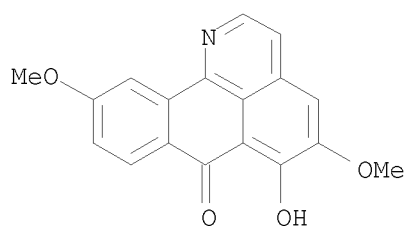
RN 83287-02-9 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,9-trimethoxy- (CA INDEX NAME)

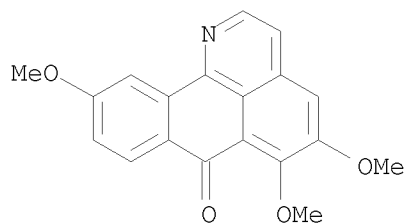
10/573,931



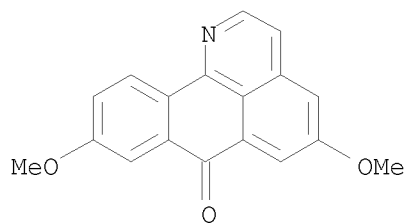
RN 88741-67-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5,10-dimethoxy- (CA INDEX NAME)



RN 88741-68-8 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,10-trimethoxy- (CA INDEX NAME)



RN 96681-50-4 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy- (CA INDEX NAME)



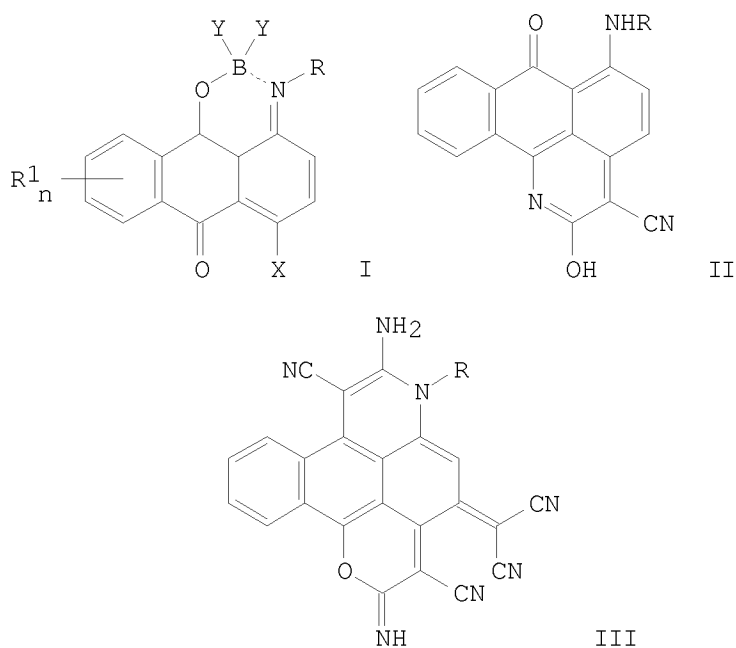
OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS  
RECORD (11 CITINGS)

L6 ANSWER 46 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1990:442466 CAPLUS  
DOCUMENT NUMBER: 113:42466  
ORIGINAL REFERENCE NO.: 113:7225a,7228a

10/573,931

TITLE: Boron-aminoanthraquinone complexes, their preparation, and their use as intermediates for preparing dyes  
INVENTOR(S): Adam, Jean Marie  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
SOURCE: Ger. Offen., 12 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 3902686	A1	19890817	DE 1989-3902686	19890130
CH 676240	A5	19901228	CH 1988-406	19880205
PRIORITY APPLN. INFO.: OTHER SOURCE(S): GI	MARPAT 113:42466		CH 1988-406 A	19880205

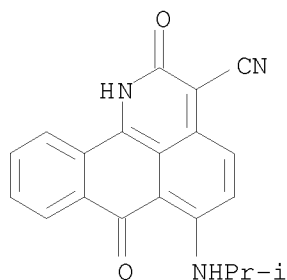


AB The title complexes I [R = H, (un)substituted C1-8 alkyl, (un)substituted Ph; R<sub>1</sub> = substituent; X = H, halogen; Y = OAc, OSO<sub>3</sub>H; n = 0-2], are prepared and react with malononitrile to form disperse dyes II [from I (X = H)] and III [from I (X = halogen)], are prepared 1-(Isopropylamino)anthraquinone reacted with BF<sub>3</sub> Et etherate, producing I (R = iso-Pr, R<sub>1</sub> = X = H, Y = F, n = 1), which reacted with malononitrile, producing blue II; (R = iso-Pr).

IT 125091-18-1P  
RL: PREP (Preparation)  
(manufacture of, as blue disperse dye)

RN 125091-18-1 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-3-carbonitrile,  
2,7-dihydro-6-[(1-methylethyl)amino]-2,7-dioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 47 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:207151 CAPLUS

DOCUMENT NUMBER: 112:207151

ORIGINAL REFERENCE NO.: 112:34835a,34838a

TITLE: Mechanism of ionization and initial fragmentation in electron-impact mass spectroscopy. Mass spectra of benzanthrone

AUTHOR(S): Ueda, Toyotoshi; Abliz, Zeper

CORPORATE SOURCE: Sci. Eng. Coll., Meisei Univ., Tokyo, Japan

SOURCE: Research Bulletin of Meisei University, Physical

Sciences and Engineering (1989), 25, 39-57

CODEN: MDKRDJ; ISSN: 0388-130X

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Electron-impact mass spectra were measured for 8 benzanthrone derivs.: benz[de]anthrone, 1-azabenzanthrone, 8-azabenzanthrone, 3-chlorobenzanthrone, 3-bromobenzanthrone, 3-iodobenzanthrone, 3-bromo-1-azabenzanthrone, and 3-bromo-8-azabenzanthrone. Ionization efficiency curves and apparent appearance energies were obtained for mol. ions and typical fragment ions. Two reaction routes were observed for 3-halogenobenzanthrone in the fragmentation process from mol. ions [M]<sup>+</sup> to [M-CO-X]<sup>+</sup> ions. Strong electrostatic repulsion between localized charges was recognized in doubly charged ions of 8-azabenzanthrone. From these observations, feasible expulsion of nonbonding electrons on different heteroatoms is proposed as an ionization model in the electron-impact experiment

IT 57669-37-1, 3-Bromo-1-azabenzanthrone 65543-67-1,

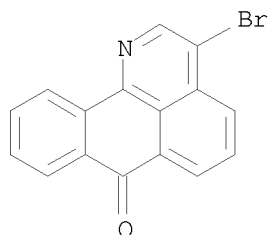
1-Azabenzanthrone

RL: PRP (Properties)

(electron-impact mass spectra of, ionization and initial fragmentation mechanisms in)

RN 57669-37-1 CAPLUS

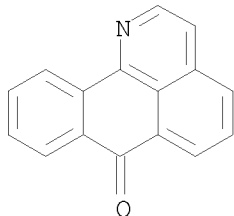
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo- (CA INDEX NAME)





10/573,931

RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



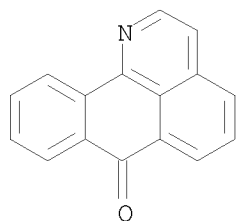
L6 ANSWER 48 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1989:553751 CAPLUS  
Correction of: 1987:196400  
DOCUMENT NUMBER: 111:153751  
Correction of: 106:196400  
ORIGINAL REFERENCE NO.: 111:25641a,25644a  
TITLE: Preparation of violanthrene N-isologs from  
1-azabenz[de]anthrone  
AUTHOR(S): Iwashima, Satoshi; Honda, Hitoshi  
CORPORATE SOURCE: Coll. Sci. Tech., Meisei Univ., Tokyo, Japan  
SOURCE: Research Bulletin of Meisei University, Physical  
Sciences and Engineering (1985), 21, 31-44  
CODEN: MDKRDJ; ISSN: 0388-130X  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese  
OTHER SOURCE(S): CASREACT 111:153751  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB 1-Azabenz[de]anthrone I (R = H, X = N) was prepared from phthalic anhydride and H<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>Ph. I underwent autocondensation, by a Zn-catalyzed or alkali fusion process. The Zn-catalyzed condensation products were diazatetrabenzoperylene II, diazabenzophenanthropentaphene III, diazadibenzonaphthopentaphene IV (the major component) and diazabenzophenalenopentaphene V. The reduced products after alkali-fusion condensation of I (R = H, X = N) were II, IV, V, and diazadinaphthoperylene VI, the major component. The self-condensation of benzanthrone I (R = H, X = CH) using Zn catalyzed redn gave terabenzoperylene II, benzophenanthropentaphene III (the major product), and dibenzonaphthopentaphene IV; whereas the alkali fusion method gave dinaphthoperylene VI, and violanthrene (VII), the major product. Similarly, I (R = Br, X = CH) on Zn-catalyzed redn gave II, III, and IV, the major product, whereas alkali fusion yielded III, VI (the major product), and VII.

IT 65543-67-1P, 7H-Dibenzo[de,h]quinolin-7-one  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, and self condensation of)

RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



L6 ANSWER 49 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:430778 CAPLUS

DOCUMENT NUMBER: 111:30778

ORIGINAL REFERENCE NO.: 111:5157a,5160a

TITLE: Electrostatic repulsion between localized charges on hetero-atoms in a doubly charged ion and mechanism of ionization and fragmentation. Electron impact mass spectra of benzanthrone, 1-azabenzanthrone, 8-azabenzanthrone and their 3-bromo substituents

AUTHOR(S): Ueda, Toyotoshi; Abliz, Zeper; Iwashima, Satoshi; Aoki, Junji; Kan, Teruo

CORPORATE SOURCE: Dep. Chem., Meisei Univ., Hino, 191, Japan

SOURCE: International Journal of Mass Spectrometry and Ion Processes (1989), 88(2-3), 175-96  
CODEN: IJMPDN; ISSN: 0168-1176

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Electron impact mass spectra and ionization efficiency curves of fragment ions were taken for benzanthrone, 1-azabenzanthrone, 8-azabenzathrone, 3-bromobenzanthrone, 3-bromo-1-azabenzanthrone, and 3-bromo-8-azabenzanthrone. The main fragmentation reactions were the elimination of CO and subsequently of HCN from the mol. ion  $M_i^+$  ( $i = 1, 2$ ) based on the observation of metastable ions and the value of appearance energies of fragment ions. The intensity of a doubly charged ion  $[M-CO-HCN \text{ (or } C_2H_2 \text{ in benzanthrone)}]^{2+}$  compared with an ion  $(M-CO)^{2+}$  is strong for 8-azabenzathrones, intermediate for 1-azabenzanthrones, and weak for benzanthrones. Possibly pos. charges are localized on O, N, or other heteroatoms immediately after the formation of a doubly charged mol. ion; they exclude each other because of strong repulsion at short distances; and this repulsive force promotes the above fragmentation. Approx. values of the 1st and 2nd ionization potentials were interpreted from the easily achieved emission of non-bonding electrons from heteroatoms in the outer surface of mols., which is correlated with the results of Mo calcns.

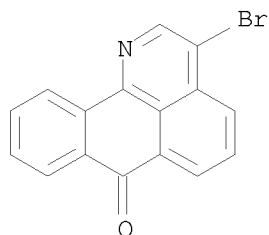
IT 57669-37-1, 3-Bromo-1-azabenzanthrone 65543-67-1,  
1-Azabenzanthrone

RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(mass spectra of)

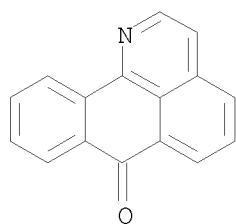
RN 57669-37-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo- (CA INDEX NAME)

10/573,931

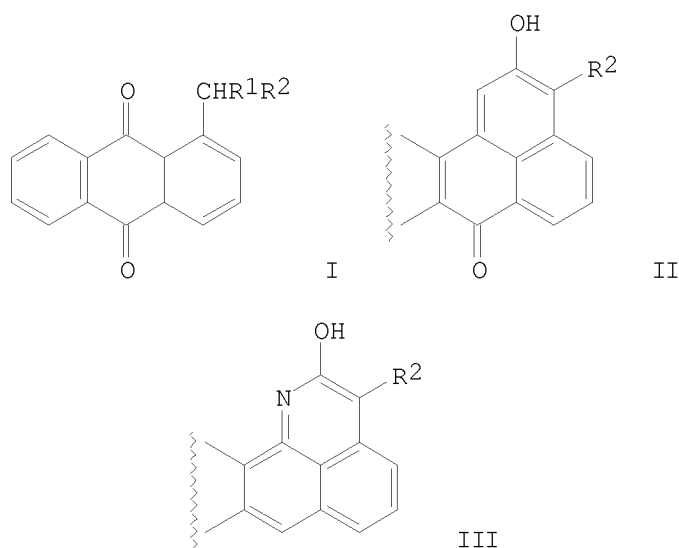


RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



L6 ANSWER 50 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1989:192410 CAPLUS  
DOCUMENT NUMBER: 110:192410  
ORIGINAL REFERENCE NO.: 110:31925a,31928a  
TITLE: Nucleophilic  $\alpha$ -alkylation of anthraquinones.  
New synthesis of derivatives of benzanthrone and  
1-azabenzanthrone  
AUTHOR(S): Gorelik, M. V.; Titova, S. P.; Kanor, M. A.  
CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod Krasitelei,  
Moscow, USSR  
SOURCE: Zhurnal Organicheskoi Khimii (1988), 24(8), 1786-7  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 110:192410  
GI

10/573,931

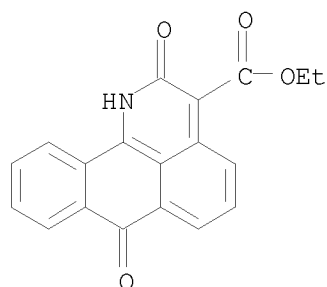


AB Anthraquinones I ( $R_1 = \text{CN}$ ,  $R_2 = \text{CO}_2\text{Et}$ , Ph;  $R_1 = R_2 = \text{CO}_2\text{Et}$ ) were prepared in 72-88% yields by treating 1-chloro, 1-nitro-, or 1-iodoanthraquinones with  $R_1\text{CH}_2R_2$  in DMSO. When  $R_1 = \text{Ac}$  the benzanthrone derivs. II ( $R_2 = \text{Ac}$ ) were formed. Hydrolytic decarboxylation of I ( $R_1 = \text{CN}$ ,  $R_2 = \text{CO}_2\text{Et}$ , Ph) by  $\text{H}_2\text{SO}_4$  gave 80 and 90% azabenzanthrones III ( $R_2 = \text{CO}_2\text{Et}$ , Ph).

IT 120346-99-8P            120347-00-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

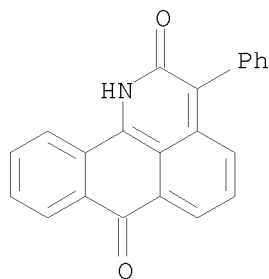
RN 120346-99-8 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-3-carboxylic acid, 2,7-dihydro-2,7-dioxo-, ethyl ester (CA INDEX NAME)



RN 120347-00-4 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-phenyl- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L6 ANSWER 51 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1987:196400 CAPLUS

DOCUMENT NUMBER: 106:196400

ORIGINAL REFERENCE NO.: 106:31841a,31844a

TITLE: Preparation of violanthrene N-isologs from  
1-azabenz[de]anthrone

AUTHOR(S): Iwashima, Satoshi; Honda, Hitoshi

CORPORATE SOURCE: Coll. Sci. Tech., Meisei Univ., Tokyo, Japan

SOURCE: Research Bulletin of Meisei University, Physical  
Sciences and Engineering (1985), 21, 31-44  
CODEN: MDKRDJ; ISSN: 0388-130X

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

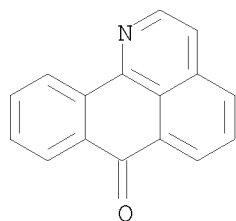
AB 1-Azabenzdeanthrone I (R = H, X = N) was prepared from phthalic anhydride and H<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>Ph. I underwent autocondensation, by a Zn-catalyzed or alkali fusion process. The Zn-catalyzed condensation products were diazatetrabenzoperylene II, diazabenzophenanthropentaphene III, diazadibenzonaphthopentaphene IV (the major component) and diazabenzophenalenopentaphene V. The reduced products after alkali-fusion condensation of I(R = H, X = N) were II, IV, V, and diazadinaphthoperylene VI, the major component. The self-condensation of benzanthrone I (R = H, X = CH) using Zn catalyzed redn gave tetrabenzoperylene II, benzophenanthropentaphene III (the major product), and dibenzonaphthopentaphene IV; whereas the alkali fusion method gave dinaphthoperylene VI, and violanthrene (VII), the major product. Similarly, I (R = Br, X = CH) on Zn- catalyzed redn gave II, III, and IV, the major product, whereas alkali fusion yielded III, VI (the major product), and VII.

IT 65543-67-1P

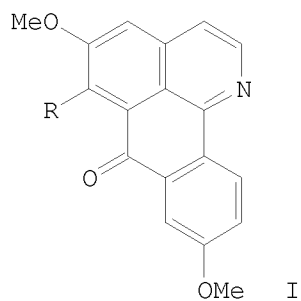
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, and self condensation of)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)

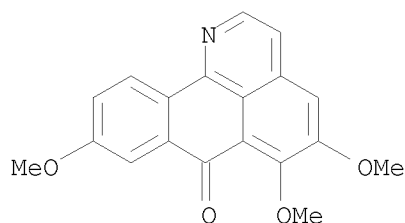


L6 ANSWER 52 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1987:67542 CAPLUS  
 DOCUMENT NUMBER: 106:67542  
 ORIGINAL REFERENCE NO.: 106:11119a,11122a  
 TITLE: Studies on the alkaloids of Menispermaceae plants.  
 Part 286. Alkaloids of Menispermum dauricum DC.  
 (11). Further evidence for the structure of  
 bianfugecine  
 AUTHOR(S): Kunitomo, Junichi; Miyata, Yohko  
 CORPORATE SOURCE: Fac. Pharm. Sci., Mukogawa Women's Univ., Nishinomiya,  
 663, Japan  
 SOURCE: Heterocycles (1986), 24(2), 437-40  
 CODEN: HTCYAM; ISSN: 0385-5414  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 106:67542  
 GI

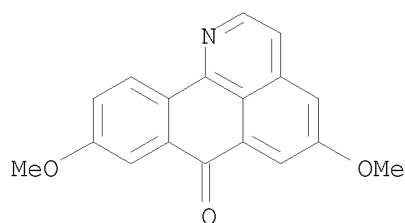


AB The structure of bianfugecine was unequivocally represented by formula I  
 (R = H) by chemical correlation with structurally established menisporphine  
 (I, R = MeO).  
 IT 83287-02-9, Menisporphine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (catalytic hydrogenation of)  
 RN 83287-02-9 CAPLUS  
 CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,9-trimethoxy- (CA INDEX NAME)

10/573,931

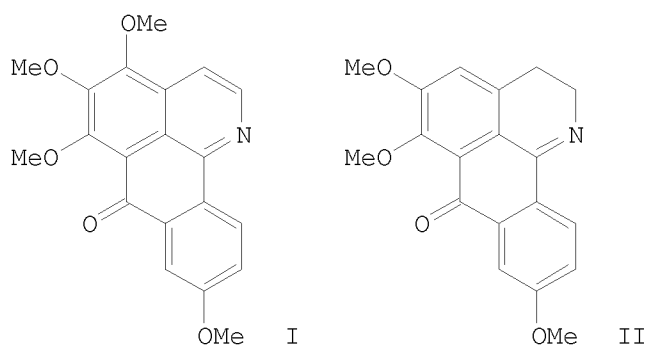


IT 96681-50-4P, Bianfugecine  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, by hydrogenolysis of menisporphine, structure of)  
RN 96681-50-4 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L6 ANSWER 53 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1986:69042 CAPLUS  
DOCUMENT NUMBER: 104:69042  
ORIGINAL REFERENCE NO.: 104:11064h,11065a  
TITLE: The structure of 2,3-dihydromenisporphine and the  
synthesis of dauriporphine, oxoisoaporphine alkaloids  
from Menispermum dauricum DC  
AUTHOR(S): Kunitomo, Jun Ichi; Kaede, Sayuri; Satoh, Miyoko  
CORPORATE SOURCE: Fac. Pharm. Sci., Mukogawa Women's Univ., Nishinomiya,  
663, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(7),  
2778-82  
CODEN: CPBTAL; ISSN: 0009-2363  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 104:69042  
GI



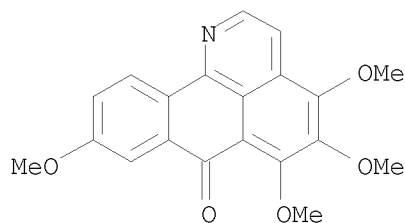
AB Two structurally unidentified alkaloids (tentatively named bases III and IV), isolated from *Menispermum dauricum* DC. (Menispermaceae), were found to be dauriporphine (I), a known oxoisoaporphine-type alkaloid, and 2,3-dihydromenisporphine (II), a new alkaloid of the same type, resp. The structure of dauriporphine was confirmed by synthesis of 4,5,6,9-tetramethoxy-7H-dibenzo[de,h]quinolin-7-one (I).

IT 88142-60-3P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(from *Menispermum dauricum*, structure and synthesis of)

RN 88142-60-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)

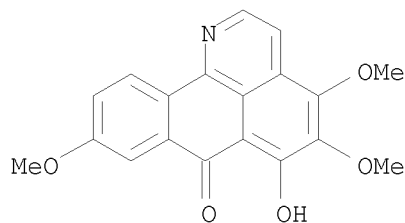


IT 100009-82-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and methylation of)

RN 100009-82-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-4,5,9-trimethoxy- (CA INDEX NAME)

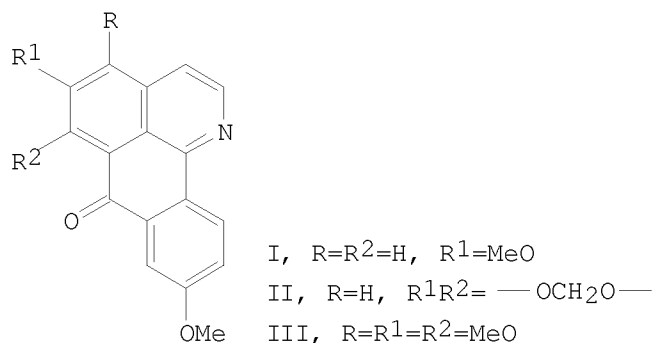


OS.CITING REF COUNT:        14        THERE ARE 14 CAPLUS RECORDS THAT CITE THIS  
RECORD (14 CITINGS)

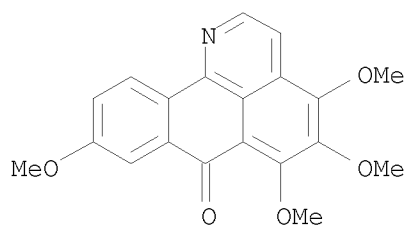


10/573,931

L6 ANSWER 54 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1985:403691 CAPLUS  
DOCUMENT NUMBER: 103:3691  
ORIGINAL REFERENCE NO.: 103:679a,682a  
TITLE: Studies on chemical constituents of Menispermum  
dauricum DC  
AUTHOR(S): Hou, Cuiying; Xue, Hong  
CORPORATE SOURCE: Inst. Mater. Med., Chin. Acad. Med. Sci., Beijing,  
Peop. Rep. China  
SOURCE: Yaoxue Xuebao (1985), 20(2), 112-17  
CODEN: YHHPAL; ISSN: 0513-4870  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
GI

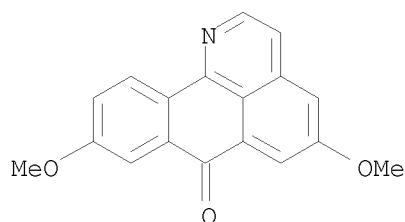


AB Three new oxoisoaporphine alkaloids were isolated from the ethanolic extract of the *M. dauricum* rhizome. The structures of the alkaloids were elucidated as 5,9-dimethoxy-7H-dibenzo[de,h]quinolin-7-one (I; bianfugecine), 5,6-methylenedioxy-9-methoxy-7H-dibenzo[de,h]quinolin-7-one (II; bianfugedine), and 4,5,6,9-tetramethoxy-7H-dibenzo[de,h]quinolin-7-one (III; bianfugenine).  
IT 88142-60-3 96681-50-4  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(of *Menispermum dauricum*)  
RN 88142-60-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)



RN 96681-50-4 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy- (CA INDEX NAME)

10/573,931



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L6 ANSWER 55 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:218382 CAPLUS

DOCUMENT NUMBER: 102:218382

ORIGINAL REFERENCE NO.: 102:34207a,34210a

TITLE: Studies on the chemical constituents of *Menispermum dauricum* DC

AUTHOR(S): Hou, Cuiying; Xue, Hong

CORPORATE SOURCE: Inst. Mater. Med., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China

SOURCE: Yaoxue Xuebao (1984), 19(6), 471-2

CODEN: YHHPAL; ISSN: 0513-4870

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Three new oxoisoaporphine alkaloids were isolated from the ethanolic extract of the rhizome of *M. dauricum*. The structures were elucidated as 5,9-dimethoxy-7H-dibenzo[de,h]quinolin-7-one, named bianfugecine, 5,6-methylenedioxy-9-methoxy-7H-dibenzo[de,h]quinolin-7-one, named bianfugedine, and 4,5,6,9-tetramethoxy-7H-dibenzo[de,h]quinolin-7-one, named bianfugenine.

IT 88142-60-3 96681-50-4

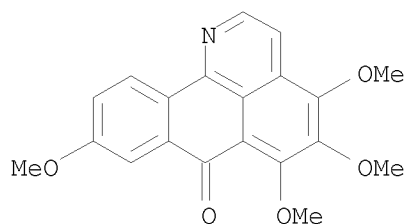
RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

(of *Menispermum dauricum*)

RN 88142-60-3 CAPLUS

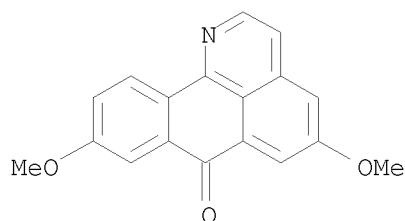
CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)



RN 96681-50-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,9-dimethoxy- (CA INDEX NAME)

10/573,931



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 56 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:184465 CAPLUS

DOCUMENT NUMBER: 102:184465

ORIGINAL REFERENCE NO.: 102:28925a,28928a

TITLE: Resonance theory and Kekule structure counts

AUTHOR(S): Aoki, Junji; Iwashima, Satoshi

CORPORATE SOURCE: Fac. Sci., Toho Univ., Tokyo, 143, Japan

SOURCE: Senryo to Yakuhin (1984), 29(11), 232-50

CODEN: SETYAL; ISSN: 0370-9671

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The usefulness of Kekule structure counts in determining resonance energies and the methods of calculating Kekule structure counts of hydrocarbons having benzene nuclei are described. According to Herndon the resonance energy (Dewar) of aromatic hydrocarbons is easily calculated from their Kekule structure

counts, and the results are close to those obtained by intricate MO theory. Kekule structure counts are effective in identifying unknown isomers. Ionization potentials are also calculated from Kekule structure counts. Kekule structure counts and ionization potentials (both exptl. and calculated ones) of 27 compds. are given in a table. Methods for calcn. of Kekule structure counts of benzenoid hydrocarbons of ortho-condensation construction, orthoperi-condensation construction, and ionic construction are also given. The structures of vat dyes are also discussed.

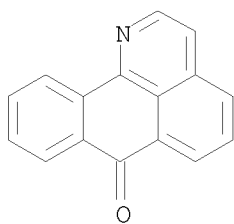
IT 65543-67-1

RL: PRP (Properties)

(resonance energy of, graph theor. calcn. of, Kekule structure count in)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



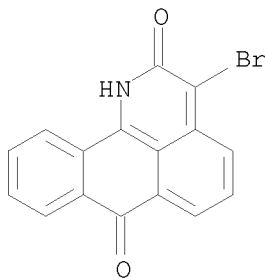
L6 ANSWER 57 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:150903 CAPLUS

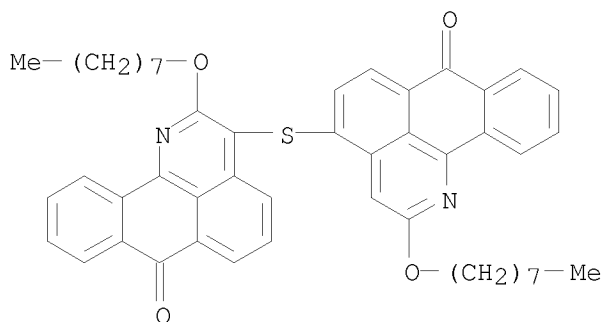
DOCUMENT NUMBER: 102:150903

10/573,931

ORIGINAL REFERENCE NO.: 102:23729a,23732a  
TITLE: Fluorescent dyes for solar collectors  
AUTHOR(S): Iden, Ruediger; Seybold, Guenther; Stange, Andreas;  
Eilingsfeld, Heinz  
CORPORATE SOURCE: ZD/Farbenlab., BASF A.-G., Ludwigshafen, Fed. Rep.  
Ger.  
SOURCE: Forschungsber. - Bundesminist. Forsch. Technol.,  
Technol. Forsch. Entwickl. (1984), BMFT-FB-T 84-164,  
115 pp.  
CODEN: BFTEAJ; ISSN: 0340-7608  
DOCUMENT TYPE: Report  
LANGUAGE: German  
AB A large number of organic dyes was synthesized and screened for potential use  
in  
solar collectors. Most suitable were perylene and perylene imide dyes, B  
complexes of naphtholactam dyes, and polycarbocyclic dyes. These compds.  
covered the whole color range from yellow to blue. Chromatog. methods  
were developed for purification of fluorescent dyes.  
IT 31715-46-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(etherification of, by octyl bromide)  
RN 31715-46-5 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-bromo- (CA INDEX NAME)



IT 95690-00-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and cyclization of)  
RN 95690-00-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-(octyloxy)-3-[[2-(octyloxy)-7-oxo-7H-  
dibenzo[de,h]quinolin-4-yl]thio]- (CA INDEX NAME)



IT 95689-99-9P

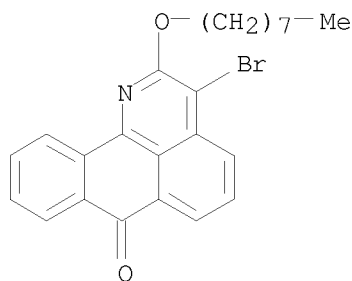
10/573,931

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and reaction with potassium sulfide)

RN 95689-99-9 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(octyloxy)- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L6 ANSWER 58 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:113329 CAPLUS

DOCUMENT NUMBER: 102:113329

ORIGINAL REFERENCE NO.: 102:17803a,17806a

TITLE: Synthesis and physical properties of azapolycyclic  
hydrocarbons. Part 1. Preparation of  
1-azabenzanthrone and its condensation products and  
their structural determination

AUTHOR(S): Iwashima, Satoshi; Ueda, Toyotoshi; Honda, Hitoshi;  
Tsujioka, Toshitsugu; Ohno, Mitsuru; Aoki, Junji; Kan,  
Teruo

CORPORATE SOURCE: Dep. Chem., Meisei Univ., Tokyo, 191, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions  
1: Organic and Bio-Organic Chemistry (1972-1999)  
(1984), (9), 2177-87

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 102:113329

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Acylation of Ph(CH<sub>2</sub>)<sub>2</sub>NH<sub>2</sub> with phthalic anhydride gave 88.2%  
N-phenethylphthalimide, which on sequential reductive cyclization and  
cyclocondensation gave 1-azabenzanthrone (I) in 38.6% overall yield. Self  
condensation of I with Zn dust-ZnCl<sub>2</sub> gave the isomers II-IV in a 29:3:68  
ratio whereas alkali fusion self condensation of I followed by ZnCl<sub>2</sub> reduction  
gave the isomers II-V in a ratio of 3:23:14:60. The structures of II-V  
were assigned from chemical and spectral data; V and another isomer, possibly  
5,14-diazatetrabenzo[a,cd,lm,o]perylene, which was detected but not  
isolated, are new structural isomers of fused nanocyclic compds. whose  
parent aromatic hydrocarbons were not prepared

IT 65543-67-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

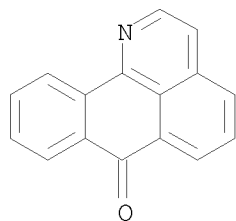
10/573,931

(Reactant or reagent)

(preparation and self-condensation reactions of)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

L6 ANSWER 59 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1984:85966 CAPLUS

DOCUMENT NUMBER: 100:85966

ORIGINAL REFERENCE NO.: 100:13041a,13044a

TITLE: Studies on the alkaloids of menispermaceous plants.  
279. Alkaloids of Menispermum dauricum DC. 9.  
Structure and synthesis of menisporphine, a new type  
of isoquinoline alkaloid

AUTHOR(S): Kunitomo, J.; Satoh, M.; Shingu, T.

CORPORATE SOURCE: Fac. Pharm. Sci., Mukogawa Women's Univ., Nishinomiya,  
663, Japan

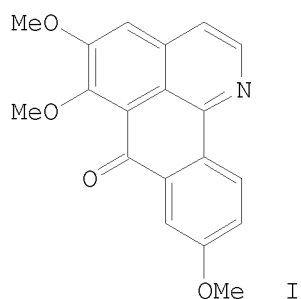
SOURCE: Tetrahedron (1983), 39(20), 3261-5

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The structure of a yellow base from Menispermum dauricum DC.  
(Menispermaceae) was determined to be the dibenzoquinolinone I from spectral  
data and synthesis, and was named menisporphine. This is a new  
isoquinoline-type alkaloid having a 7H-dibenzo[de,h]quinolin-7-one  
skeleton for which the general term "oxoisoaporphine" is proposed.

IT 83287-02-9

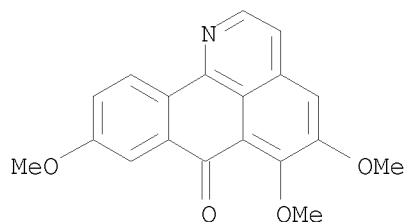
RL: RCT (Reactant); RACT (Reactant or reagent)

(alkaloid from Menispermum dauricum, structure determination of)

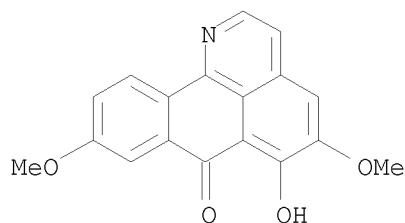
RN 83287-02-9 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,9-trimethoxy- (CA INDEX NAME)

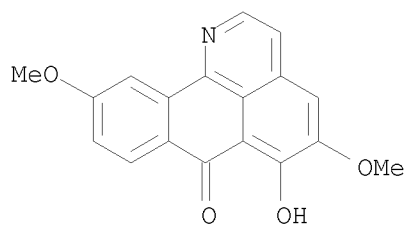
10/573,931



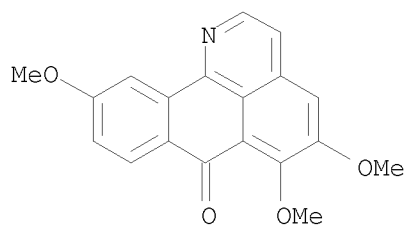
IT 83287-03-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and methylation of)  
RN 83287-03-0 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5,9-dimethoxy- (CA INDEX NAME)



IT 88741-67-7P 88741-68-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 88741-67-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5,10-dimethoxy- (CA INDEX NAME)



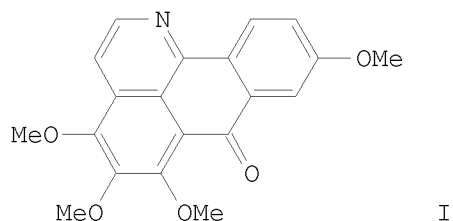
RN 88741-68-8 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,10-trimethoxy- (CA INDEX NAME)



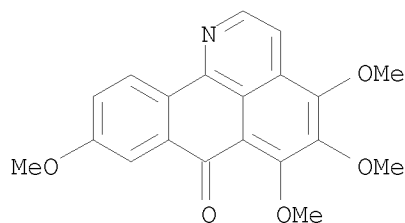
10/573,931

OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS  
RECORD (13 CITINGS)

L6 ANSWER 60 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1984:3513 CAPLUS  
DOCUMENT NUMBER: 100:3513  
ORIGINAL REFERENCE NO.: 100:611a,614a  
TITLE: Studies on constituents of medicinal plants. XXIII.  
Constituents of the vines of *Menispermum dauricum* DC.  
(2)  
AUTHOR(S): Takani, Masako; Takasu, Yasuko; Takahashi, Kotaro  
CORPORATE SOURCE: Fac. Pharm. Sci., Kanazawa Univ., Kanazawa, 920, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (1983), 31(9),  
3091-3  
CODEN: CPBTAL; ISSN: 0009-2363  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB A new oxoisoaporphine-type compound, named dauriporphine (I) was isolated  
from the vines of *M. dauricum* (Menispermaceae) and the structure of this  
compound was elucidated as 4,5,6,9-tetramethoxy-7H-dibenzo[de,h]quinolin-7-  
one.  
IT 88142-60-3  
RL: BIOL (Biological study)  
(from vine of *Menispermum dauricum*)  
RN 88142-60-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 4,5,6,9-tetramethoxy- (CA INDEX NAME)

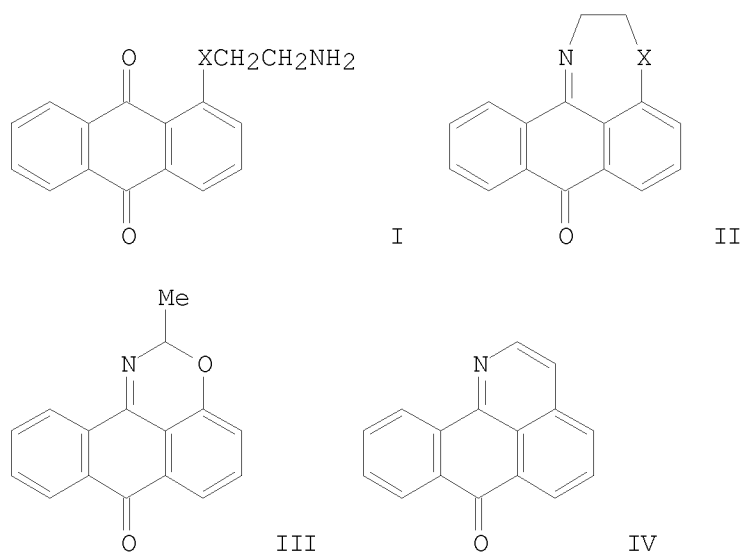


OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS  
RECORD (10 CITINGS)

L6 ANSWER 61 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1983:522432 CAPLUS  
DOCUMENT NUMBER: 99:122432  
ORIGINAL REFERENCE NO.: 99:18861a,18864a

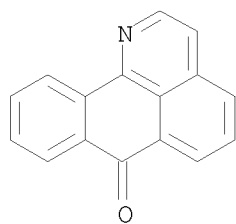


TITLE: Synthesis and rearrangements of dihydro-1,4-oxazepine and dihydro-1,4-thiazepine derivatives  
 AUTHOR(S): Krapcho, A. Paul; Shaw, Kenneth J.  
 CORPORATE SOURCE: Vermont Reg. Cancer Cent., Univ. Vermont, Burlington, VT, 05405, USA  
 SOURCE: Journal of Organic Chemistry (1983), 48(19), 3341-3  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 99:122432  
 GI



AB Anthraquinones I (X = O, S), prepared by treatment of a halo derivative with  $\text{HXCH}_2\text{CH}_2\text{NH}_2$ , were converted to dihydrooxa- and thiazepines II. II (X = O) on heating in AcOH rearranged to give III. Heating II (X = S) in AcOH gave pyridinanthrone IV.

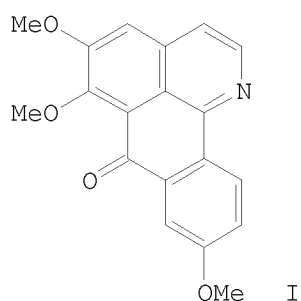
IT 65543-67-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 65543-67-1 CAPLUS  
 CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



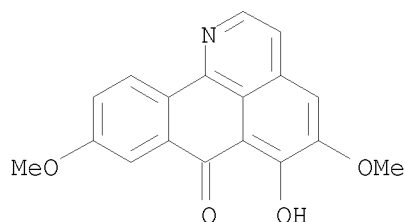
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
 (2 CITINGS)

10/573,931

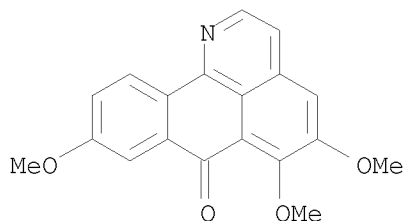
ACCESSION NUMBER: 1982:598422 CAPLUS  
DOCUMENT NUMBER: 97:198422  
ORIGINAL REFERENCE NO.: 97:33240h,33241a  
TITLE: Structure of menisporphine: a new type of  
isoquinoline alkaloid  
AUTHOR(S): Kunitomo, Junichi; Satoh, Miyoko  
CORPORATE SOURCE: Fac. Pharm. Sci., Mukogawa Women's Univ., Nishinomiya,  
663, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (1982), 30(7),  
2659-60  
CODEN: CPBTAL; ISSN: 0009-2363  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB The structure of the unknown yellow base from *Menispermum dauricum* DC.  
(Menispermaceae) was determined to be  
5,6,9-trimethoxy-7H-dibenzo[de,h]quinolin-  
7-one (I) by spectral data and total synthesis. It was named  
menisporphine and the skeletal name "oxoisoaporphine" was proposed for  
this new type of alkaloid. The biosynthesis route of oxoisoaporphine-type  
alkaloids in plants is suggested.  
IT 83287-03-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and methylation of)  
RN 83287-03-0 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-hydroxy-5,9-dimethoxy- (CA INDEX NAME)



IT 83287-02-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(Menispermum dauricum alkaloid, structure of)  
RN 83287-02-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5,6,9-trimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L6 ANSWER 63 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1982:124502 CAPLUS

DOCUMENT NUMBER: 96:124502

ORIGINAL REFERENCE NO.: 96:20459a,20462a

TITLE: New daylight fluorescent pigments

AUTHOR(S): Carlini, Filippo M.; Paffoni, Camillo; Boffa, Gioacchino

CORPORATE SOURCE: Ist. G. Donegani S.p.A., Novara, 28100, Italy

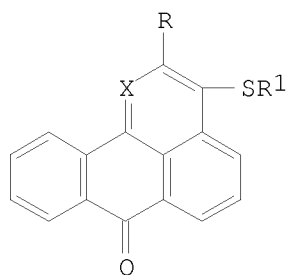
SOURCE: Dyes and Pigments (1982), 3(1), 59-69

CODEN: DYPIDX; ISSN: 0143-7208

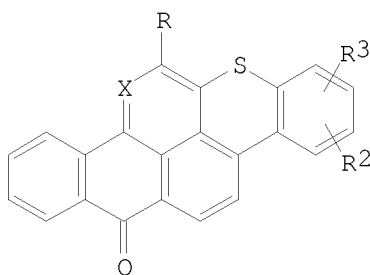
DOCUMENT TYPE: Journal

LANGUAGE: English

GI



I



II

AB The synthesis and properties of a series of plastisol. daylight fluorescent pigments of general structures I (X = CH, N; R = H, alkoxy; R1 = aromatic, heteroarom., aliphatic radical) and II (X = CH, N; R = H, alkoxy; R2, R3 = H, alkyl, halogen, alkoxy) are described. I have colors ranging from greenish yellow to orange, and II are red to violet. These pigment exhibit good lightfastness and thermal stability when incorporated in plastics.

IT 40338-74-7 61433-45-2 81232-53-3  
81232-54-4 81232-56-6 81232-57-7  
81232-58-8 81232-59-9 81232-60-2  
81232-61-3

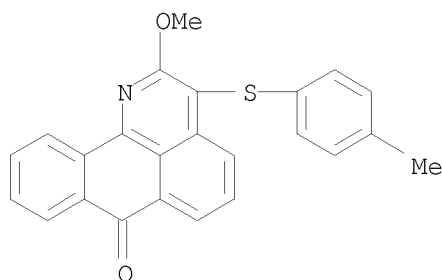
RL: USES (Uses)

(pigment, preparation light fastness and optical absorption maximum of)

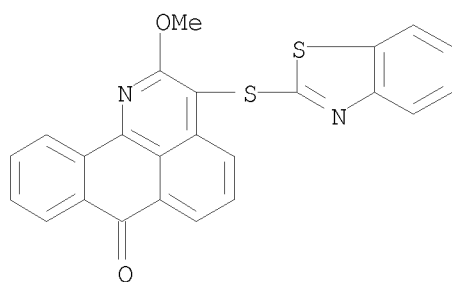
RN 40338-74-7 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-3-[(4-methylphenyl)thio]- (CA INDEX NAME)

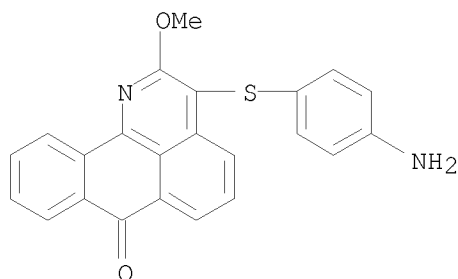
10/573,931



RN 61433-45-2 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-(2-benzothiazolylthio)-2-methoxy- (CA INDEX NAME)

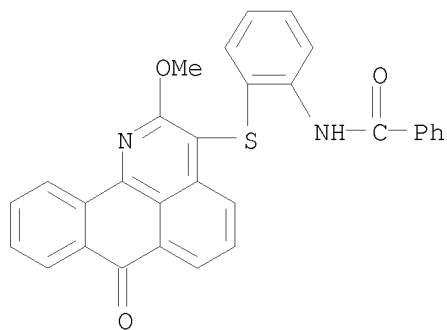


RN 81232-53-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(4-aminophenyl)thio]-2-methoxy- (CA INDEX NAME)

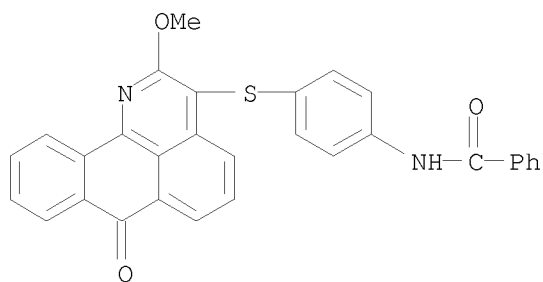


RN 81232-54-4 CAPLUS  
CN Benzamide, N-[2-[(2-methoxy-7-oxo-7H-dibenzo[de,h]quinolin-3-yl)thio]phenyl]- (CA INDEX NAME)

10/573,931

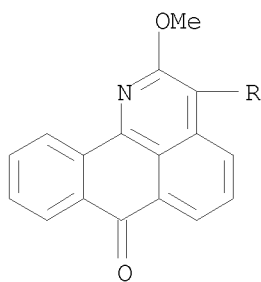


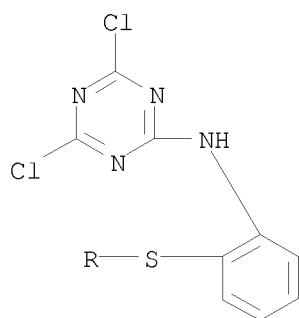
RN 81232-56-6 CAPLUS  
CN Benzamide, N-[4-[(2-methoxy-7-oxo-7H-dibenzo[de,h]quinolin-3-yl)thio]phenyl]- (CA INDEX NAME)



RN 81232-57-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[[2-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]phenyl]thio]-2-methoxy- (CA INDEX NAME)

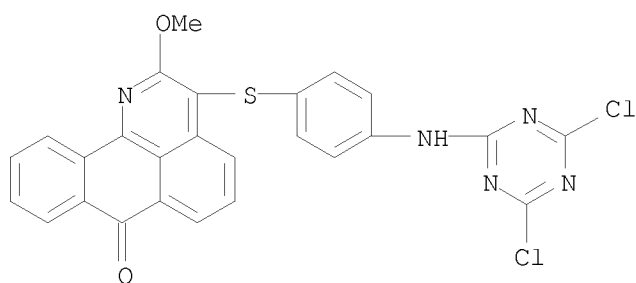
PAGE 1-A





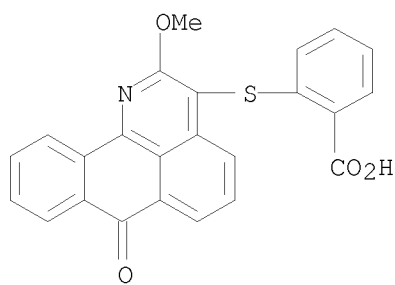
RN 81232-58-8 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[[4-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]phenyl]thio]-2-methoxy- (CA INDEX NAME)



RN 81232-59-9 CAPLUS

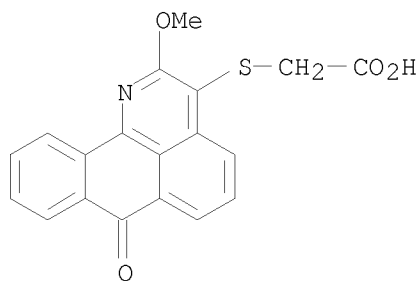
CN Benzoic acid, 2-[(2-methoxy-7-oxo-7H-dibenzo[de,h]quinolin-3-yl)thio]- (CA INDEX NAME)



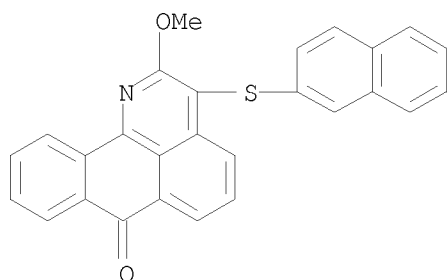
RN 81232-60-2 CAPLUS

CN Acetic acid, 2-[(2-methoxy-7-oxo-7H-dibenzo[de,h]quinolin-3-yl)thio]- (CA INDEX NAME)

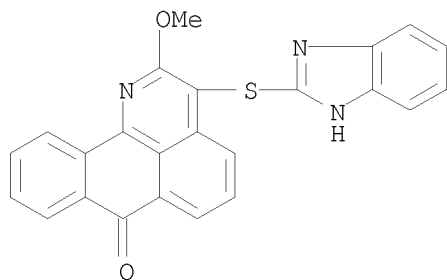
10/573,931



RN 81232-61-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-3-(2-naphthalenylthio)- (CA INDEX NAME)



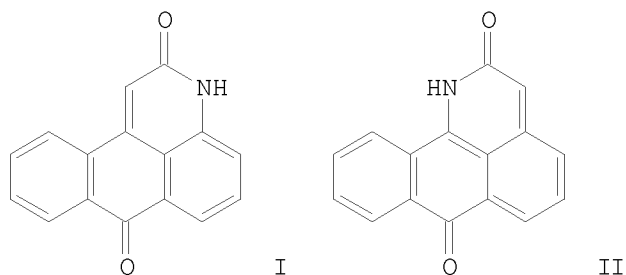
IT 61433-44-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(pigment, preparation, lightfastness and optical absorption maximum of)  
RN 61433-44-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-(1H-benzimidazol-2-ylthio)-2-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

L6 ANSWER 64 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1981:603081 CAPLUS  
DOCUMENT NUMBER: 95:203081  
ORIGINAL REFERENCE NO.: 95:33921a,33924a  
TITLE: Electronic structure of 2-hydroxyazabenzanthrones  
AUTHOR(S): Mikhailova, T. A.; Zaitsev, B. E.; Sheban, G. V.; Gorelik, M. V.

CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod. Krasitelei,  
Moscow, 103787, USSR  
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1981), (6),  
803-9  
CODEN: KGSSAQ; ISSN: 0453-8234  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
GI



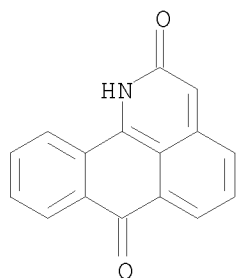
AB Bond orders at charges, electronic spectra, and HOMO and LUMO energies were calculated for title compds. I and II, their lactim tautomers, and some related mols. by the PPP method. The C-C bonds in the terminal benzene rings of I are approx. uniform, whereas in 1 of the benzene rings of II, bond alternation is pronounced. The aromaticity of the heterocyclic ring in II is greater than that in I. In the 1st excited state the C-C bonds become more uniform, and  $\pi$ -electron d. is shifted from the lactam or lactim group toward the ketone function. The effects of the HOMO and LUMO energies on the spectra were discussed.

IT 31293-07-9 79668-96-5

RL: PRP (Properties)  
(MO calcns. for)

RN 31293-07-9 CAPLUS

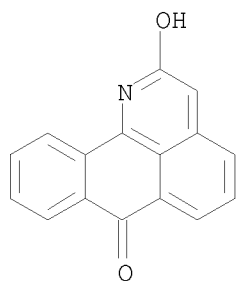
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



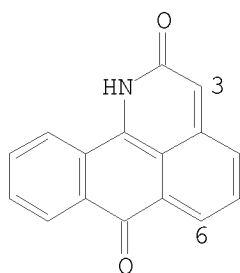
RN 79668-96-5 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-hydroxy- (CA INDEX NAME)

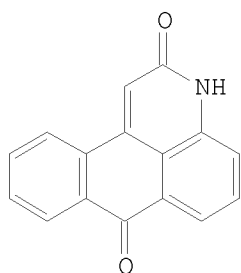




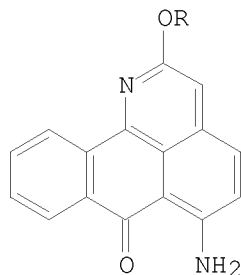
L6 ANSWER 65 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1981:461231 CAPLUS  
 DOCUMENT NUMBER: 95:61231  
 ORIGINAL REFERENCE NO.: 95:10343a,10346a  
 TITLE: Tautomerism and acid-base properties of  
 2-hydroxy-1-azabenzanthrones  
 AUTHOR(S): Mikhailova, T. A.; Zaitsev, B. E.; Gorelik, M. V.  
 CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod. Krasitelei,  
 Moscow, USSR  
 SOURCE: Zhurnal Organicheskoi Khimii (1981), 17(4), 803-11  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 95:61231  
 GI



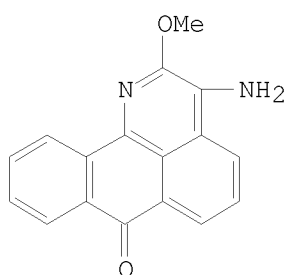
I



II



III

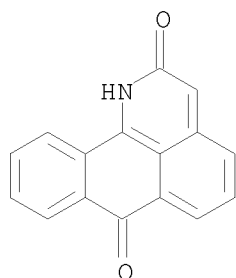


IV

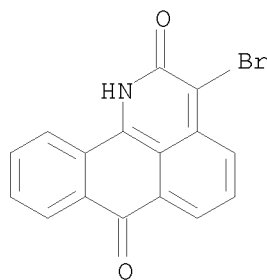
AB In polar protic solvents a tautomerism between I and the corresponding lactim form occurs. Introduction of a halogen atom into position 3 or 6 decreases the lactam content; an amino group at position 6 increases it. The acidity and basicity of I exceed those of II. Protonation of III (R = H, Me) occurs initially on the heterocyclic N, then on the carbonyl O, and

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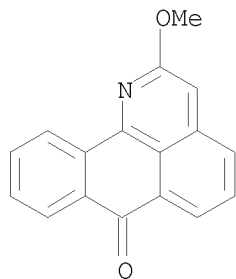
finally on the NH<sub>2</sub> group. IV is protonated 1st on the NH<sub>2</sub> group.  
IT 31293-07-9 31715-46-5 40338-68-9  
78380-64-0  
RL: PRP (Properties)  
(acid-base properties and tautomerism of)  
RN 31293-07-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



RN 31715-46-5 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-bromo- (CA INDEX NAME)

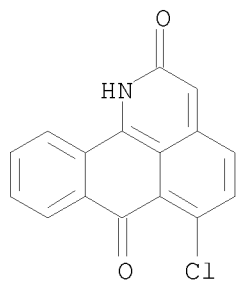


RN 40338-68-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy- (CA INDEX NAME)

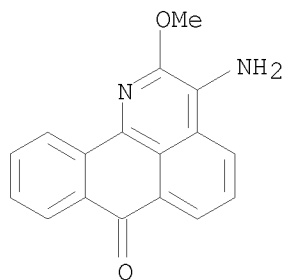


RN 78380-64-0 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 6-chloro- (CA INDEX NAME)

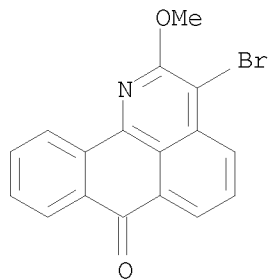
10/573,931



IT 40338-73-6  
RL: PRP (Properties)  
(basicity and electronic spectrum of)  
RN 40338-73-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-amino-2-methoxy- (CA INDEX NAME)

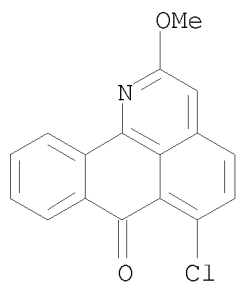


IT 31715-55-6 78380-66-2 78380-67-3  
78380-68-4 78380-69-5 78380-70-8  
78380-71-9 78380-72-0 78380-73-1  
78380-74-2  
RL: PRP (Properties)  
(electronic spectrum of)  
RN 31715-55-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)



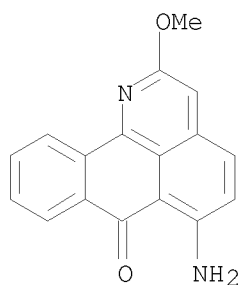
RN 78380-66-2 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 6-chloro-2-methoxy- (CA INDEX NAME)

10/573,931



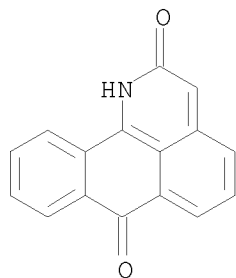
RN 78380-67-3 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-amino-2-methoxy- (CA INDEX NAME)



RN 78380-68-4 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, conjugate acid (1:1) (CA INDEX NAME)

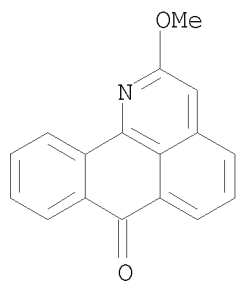


● H<sup>+</sup>

RN 78380-69-5 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-, conjugate acid (1:1) (CA INDEX NAME)

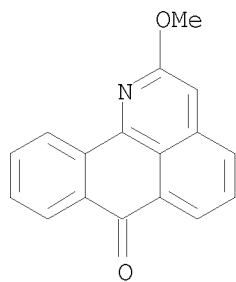
10/573,931



● H<sup>+</sup>

RN 78380-70-8 CAPLUS

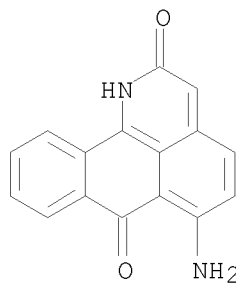
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-, conjugate acid (1:2) (CA INDEX NAME)



● 2 H<sup>+</sup>

RN 78380-71-9 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 6-amino-, conjugate acid (1:1) (CA INDEX NAME)

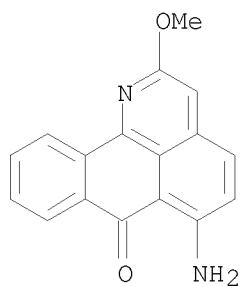


● H<sup>+</sup>

RN 78380-72-0 CAPLUS

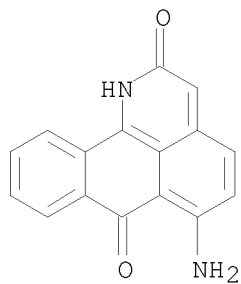
10/573,931

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-amino-2-methoxy-, conjugate acid (1:1)  
(CA INDEX NAME)



● H<sup>+</sup>

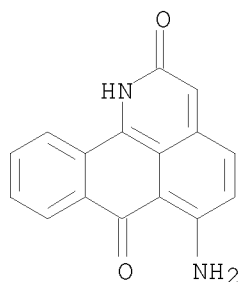
RN 78380-73-1 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 6-amino-, conjugate acid (1:2) (CA  
INDEX NAME)



● 2 H<sup>+</sup>

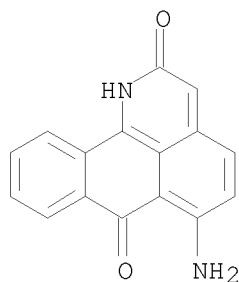
RN 78380-74-2 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 6-amino-, conjugate acid (1:3) (CA  
INDEX NAME)

10/573,931



● 3 H<sup>+</sup>

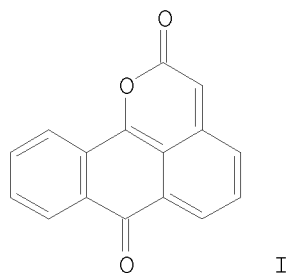
IT 78380-65-1  
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)  
(tautomerism of)  
RN 78380-65-1 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 6-amino- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L6 ANSWER 66 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1978:563353 CAPLUS  
DOCUMENT NUMBER: 89:163353  
ORIGINAL REFERENCE NO.: 89:25313a  
TITLE: Synthesis and properties of pyronanthrone  
AUTHOR(S): Gorelik, M. V.; Kazankov, M. V.; Bernadskii, M. I.  
CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod. Krasitelei,  
Moscow, USSR  
SOURCE: Zhurnal Organicheskoi Khimii (1978), 14(7), 1535-44  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 89:163353  
GI

10/573,931



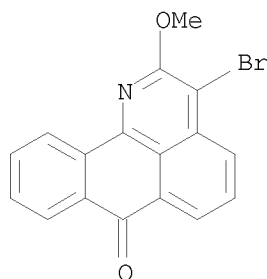
AB Treatment of anthraquinonyl-1-acetic acid and its derivs. with dehydrating agents gave pyronanthrones, e.g., 2H,7H-dibenzo[de,h]chromen-2,7-dione (I), a new group of peri-condensed derivs. of anthrone with ana-quinoid system bonds. Pyronanthrones were treated with electrophilic and nucleophilic agents to give products substituted in position 3; with dienophiles, adducts were formed which aromatized to give benzanthrone derivs. Heating I in an organic solvent gave (reversibly) the dimer, which was treated with alkaline agents and acids to give 3,3'-bispyronanthrone and 2,3-di-1-anthraquinonylsuccinic acid.

IT 31715-55-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling reaction of)

RN 31715-55-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)



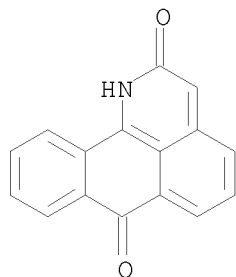
IT 31293-07-9P

67768-16-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 31293-07-9 CAPLUS

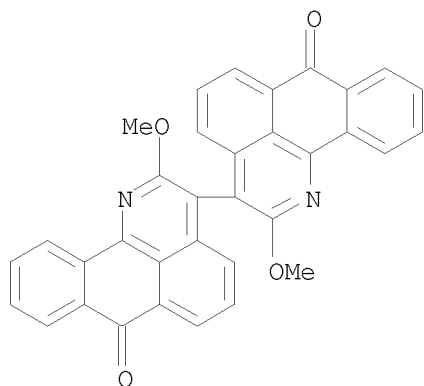
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)





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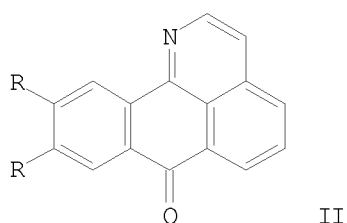
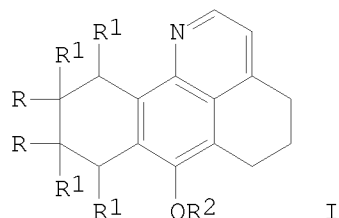
RN 67768-16-5 CAPLUS  
CN [3,3'-Bi-7H-dibenzo[de,h]quinoline]-7,7'-dione, 2,2'-dimethoxy- (CA INDEX NAME)



L6 ANSWER 67 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1978:424175 CAPLUS  
DOCUMENT NUMBER: 89:24175  
ORIGINAL REFERENCE NO.: 89:3753a,3756a  
TITLE: Dibenzo[de,h]quinoline derivatives  
PATENT ASSIGNEE(S): Rhone-Poulenc Industries S. A., Fr.  
SOURCE: Belg., 17 pp.  
CODEN: BEXXAL  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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BE 854869	A1	19771121	BE 1977-177769	19770520
FR 2351656	A1	19771216	FR 1976-15379	19760521
FR 2351656	B1	19781215		
NL 7705337	A	19771123	NL 1977-5337	19770513
SE 7705853	A	19771122	SE 1977-5853	19770517
DK 7702174	A	19771122	DK 1977-2174	19770518
JP 52142074	A	19771126	JP 1977-56537	19770518
ZA 7702986	A	19780426	ZA 1977-2986	19770518
GB 1530438	A	19781101	GB 1977-20969	19770518
AU 7725250	A	19781123	AU 1977-25250	19770518
AU 507900	B2	19800228		
US 4128650	A	19781205	US 1977-798139	19770518
HU 173385	B	19790428	HU 1977-RO929	19770519
FI 7701613	A	19771122	FI 1977-1613	19770520
NO 7701771	A	19771122	NO 1977-1771	19770520
CA 1073912	A1	19800318	CA 1977-278864	19770520
CH 625225	A5	19810915	CH 1977-6242	19770520
PRIORITY APPLN. INFO.:			FR 1976-15379	A 19760521
OTHER SOURCE(S):	MARPAT	89:24175		
GI				

10/573,931

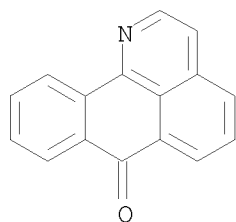


AB Dibenzo[de,h]quinolines I (R = H, MeO; R1 = H or R12 = bond; R2 = H, CH2CO2H) were prepared by partial hydrogenation of the ketones II. I are antiviral, e.g., inhibiting rhinovirus human strain 2060 at 3-15  $\mu\text{g/mL}$ . Thus, the hydrogenation of 16.5 g II (R = MeO), obtained in several steps from II (R = H), gave 4.56 g I (R = MeO, R12 = bond, R2 = H).

IT 65543-67-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (partial hydrogenation of)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)

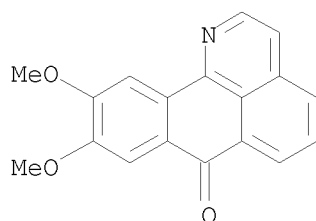


IT 65543-60-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and partial hydrogenation of)

RN 65543-60-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 9,10-dimethoxy- (CA INDEX NAME)

10/573,931



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 68 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1978:74307 CAPLUS

DOCUMENT NUMBER: 88:74307

ORIGINAL REFERENCE NO.: 88:11737a,11740a

TITLE: Dibenzo[de,h]quinoline

INVENTOR(S): Fabre, Jean Louis; Farge, Daniel; James, Claude

PATENT ASSIGNEE(S): Rhone-Poulenc Industries S. A., Fr.

SOURCE: Ger. Offen., 23 pp.

CODEN: GWXXBX

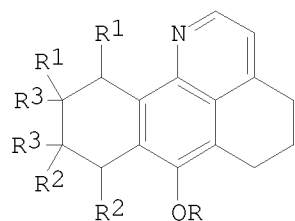
DOCUMENT TYPE: Patent

LANGUAGE: German

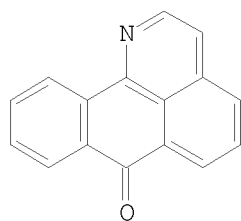
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2722773	A1	19771208	DE 1977-2722773	19770520
FR 2351656	A1	19771216	FR 1976-15379	19760521
FR 2351656	B1	19781215		
NL 7705337	A	19771123	NL 1977-5337	19770513
SE 7705853	A	19771122	SE 1977-5853	19770517
DK 7702174	A	19771122	DK 1977-2174	19770518
JP 52142074	A	19771126	JP 1977-56537	19770518
ZA 7702986	A	19780426	ZA 1977-2986	19770518
GB 1530438	A	19781101	GB 1977-20969	19770518
AU 7725250	A	19781123	AU 1977-25250	19770518
AU 507900	B2	19800228		
US 4128650	A	19781205	US 1977-798139	19770518
HU 173385	B	19790428	HU 1977-RO929	19770519
FI 7701613	A	19771122	FI 1977-1613	19770520
NO 7701771	A	19771122	NO 1977-1771	19770520
CA 1073912	A1	19800318	CA 1977-278864	19770520
CH 625225	A5	19810915	CH 1977-6242	19770520
PRIORITY APPLN. INFO.: GI			FR 1976-15379	A 19760521



I



II

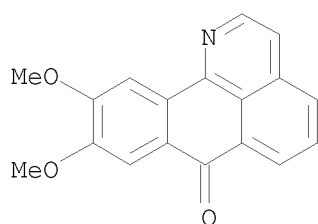
10/573,931

AB Four title compds. I (R = H, CH<sub>2</sub>CO<sub>2</sub>H; R<sub>1</sub> = R<sub>2</sub> = H, R<sub>12</sub> = R<sub>22</sub> = bond; R<sub>3</sub> = H, OMe) were prepared for use as virucides. Thus, II was hydrogenated over Adams Pt in EtOH at 10 bar to give I (R = R<sub>3</sub> = H, R<sub>12</sub> = R<sub>22</sub> = bond) or in AcOH at 25 bar to give I (R = R<sub>1</sub> = R<sub>2</sub> = R<sub>3</sub> = H). I had min. inhibiting concentration of 3-15 µg/cm<sup>3</sup> against Rhinovirus humanus.

IT 65543-60-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reduction of)

RN 65543-60-4 CAPLUS

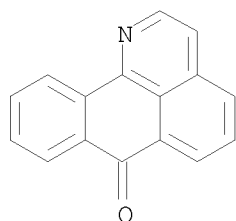
CN 7H-Dibenzo[de,h]quinolin-7-one, 9,10-dimethoxy- (CA INDEX NAME)



IT 65543-67-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reduction of)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)

L6 ANSWER 69 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1977:141620 CAPLUS

DOCUMENT NUMBER: 86:141620

ORIGINAL REFERENCE NO.: 86:22251a,22254a

TITLE: 2-Methoxy-3-aminobenzanthrone and  
2-ethoxy-3-aminobenzanthrone as bulk dyes for plastics

INVENTOR(S): Carlini, Filippo M.; Mazzaferro, Nicola; Paffoni, Camillo; Boffa, Gioacchino

PATENT ASSIGNEE(S): Montedison S.p.A., Italy

SOURCE: Ger. Offen., 13 pp.  
CODEN: GWXXBX

DOCUMENT TYPE: Patent

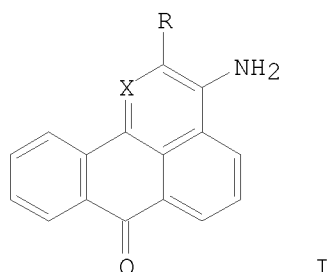
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

10/573,931

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2629454	A1	19770127	DE 1976-2629454	19760630
JP 52006747	A	19770119	JP 1976-76591	19760630
PRIORITY APPLN. INFO.: GI			IT 1975-25029	A 19750702

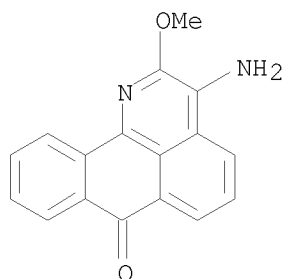


AB Benzanthrone derivs. (I; R = H, MeO; X = CH, N) were prepared and used to mass dye poly(Me methacrylate) (II) [9011-14-7], polystyrene [9003-53-6], and ABS [9003-56-9] fast orange to violet shades. Thus, 2-methoxybenzanthrone [6535-67-7] was nitrated and the resulting 2-methoxy-3-nitrobenzanthrone [62155-81-1] in the form of an aqueous paste was reduced with Na sulfide to give I (R = H, X = CH) [62155-82-2], dyeing II a fast, fluorescent orange shade.

IT 40338-73-6  
RL: USES (Uses)  
(dyeing by, of poly(methyl methacrylate))

RN 40338-73-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-amino-2-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L6 ANSWER 70 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1977:56754 CAPLUS

DOCUMENT NUMBER: 86:56754

ORIGINAL REFERENCE NO.: 86:9057a,9060a

TITLE: Azabenzanthrone fluorescent dyes

INVENTOR(S): Pieri, Giampiero; Carlini, Filippo M.; Paffoni, Camillo; Boffa, Gioacchino

PATENT ASSIGNEE(S): Italy

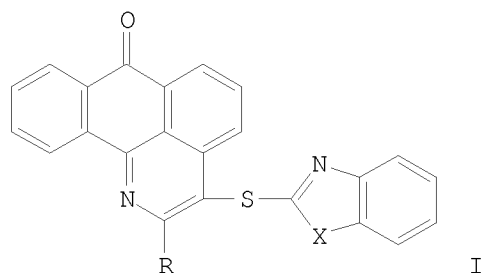
SOURCE: Ger. Offen., 12 pp.

10/573,931

CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2617321	A1	19761104	DE 1976-2617321	19760421
NL 7604130	A	19761026	NL 1976-4130	19760420
FR 2308667	A1	19761119	FR 1976-11667	19760421
FR 2308667	B1	19790720		
US 4031096	A	19770621	US 1976-679030	19760421
GB 1497000	A	19780105	GB 1976-16171	19760421
BR 7602453	A	19761019	BR 1976-2453	19760422
CA 1050017	A1	19790306	CA 1976-251251	19760422
BE 841063	A1	19761025	BE 1976-166409	19760423
JP 51130427	A	19761112	JP 1976-45609	19760423
PRIORITY APPLN. INFO.:			IT 1975-22723	A 19750424
			IT 1975-22722	A 19750424

GI



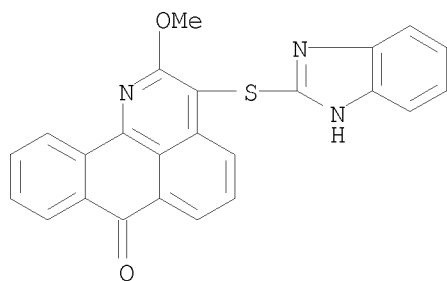
AB Refluxing 3-bromo-2-methoxy-1-azabenzanthrone [31715-55-6] with 2-mercaptobenzimidazole [583-39-1] or 2-mercaptobenzothiazole [149-30-4] in DMF containing Na<sub>2</sub>CO<sub>3</sub> gave fluorescent yellow I (R = MeO, X = N) (II) [61433-44-1] and I (R = MeO, X = S) [61433-45-2], resp. II, m. 360° (decompose), showed good lightfastness and heat stability when extruded with poly(Me methacrylate) [9011-14-7].

IT 61433-44-1P 61433-45-2P  
RL: PREP (Preparation)  
(fluorescent dye, manufacture of)

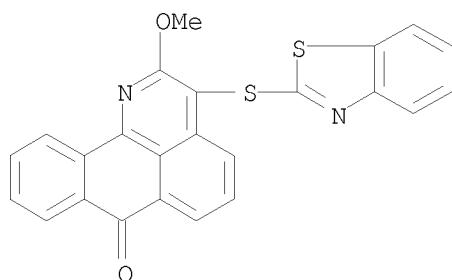
RN 61433-44-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-(1H-benzimidazol-2-ylthio)-2-methoxy-  
(CA INDEX NAME)

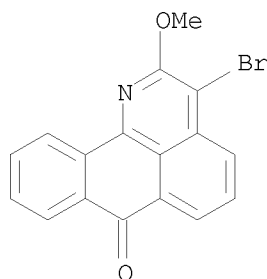
10/573,931



RN 61433-45-2 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-(2-benzothiazolylthio)-2-methoxy- (CA INDEX NAME)



IT 31715-55-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with mercaptobenzimidazole and mercaptobenzothiazole)  
RN 31715-55-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)

L6 ANSWER 71 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1977:56722 CAPLUS

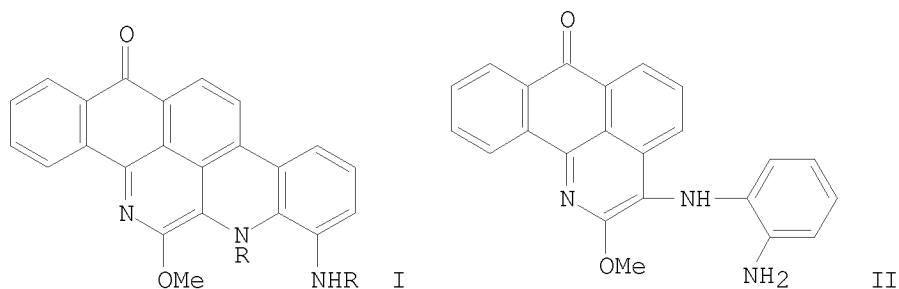
DOCUMENT NUMBER: 86:56722

ORIGINAL REFERENCE NO.: 86:9053a,9056a

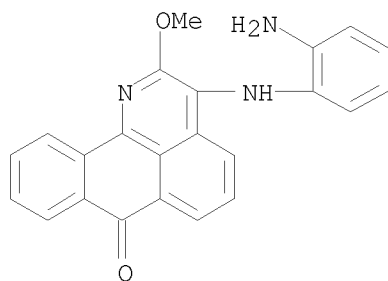
TITLE: New heterocyclic dyes: a derivative of  
anthrabenzonaphthyridine

AUTHOR(S): Boffa, Gioacchino; Mazzaferro, Nicola; Paffoni,  
Camillo

CORPORATE SOURCE: Ist. Ric. "G. Donegani", Montedison S.p.A., Novara, Italy  
 SOURCE: Annali di Chimica (Rome, Italy) (1975), 65(5-6), 369-70  
 CODEN: ANCRAI; ISSN: 0003-4592  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Anthrabenzonaphthyridine dye I (R = Bz) [59836-90-7], used for dyeing plastics, especially poly(Me methacrylate) [9011-14-7], a lightfast daylight fluorescent yellow shade, was prepared by alkali fusion of II [59836-89-4] and reaction of the cyclized intermediate I (R = H) [59836-91-8] with BzCl.  
 IT 59836-89-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cyclization of)  
 RN 59836-89-4 CAPLUS  
 CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)amino]-2-methoxy- (CA INDEX NAME)

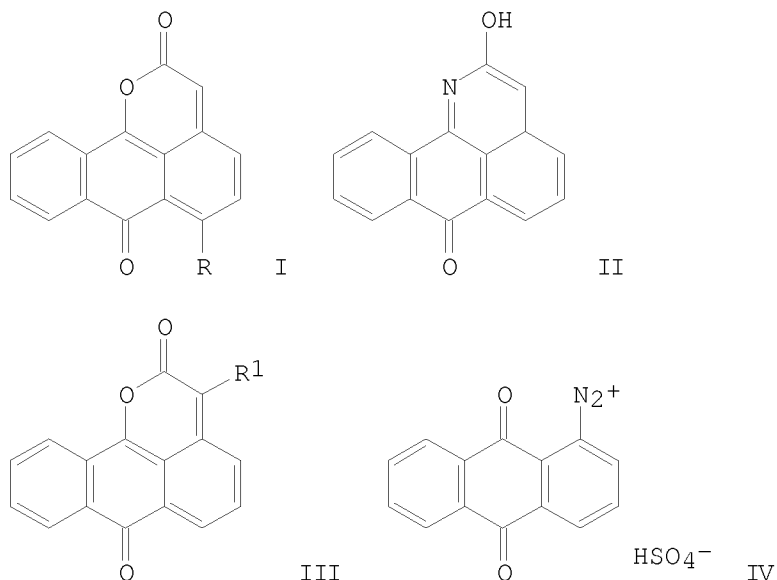


L6 ANSWER 72 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1977:43506 CAPLUS  
 DOCUMENT NUMBER: 86:43506  
 ORIGINAL REFERENCE NO.: 86:6917a,6920a  
 TITLE: Cyclization of anthraquinonyl-1-acetic acid  
 AUTHOR(S): Gorelik, M. V.; Kazankov, M. V.; Bernadskii, M. I.  
 CORPORATE SOURCE: Nauchno-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, USSR  
 SOURCE: Zhurnal Organicheskoi Khimii (1976), 12(9), 2041-2  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DOCUMENT TYPE: Journal



10/573,931

LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 86:43506  
GI



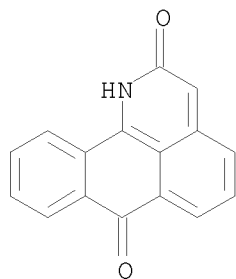
AB Intramol. cyclization of the title compound gave 96% I (R = H); I (R = Cl) was prepared in 75% yield by cyclization of the corresponding acid; 20% I (R = OH) was also obtained. Treatment of I (R = H) with NH<sub>3</sub> gave 48% II. Reaction of I (R = H) with SO<sub>2</sub>Cl<sub>2</sub> gave 94% III (R<sub>1</sub> = Cl) which was also obtained by reaction of diazonium salt IV with ClCH:CCl<sub>2</sub>. III (R<sub>1</sub> = Br) was prepared by the former method.

IT 31293-07-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 31293-07-9 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 73 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1976:578980 CAPLUS

DOCUMENT NUMBER: 85:178980

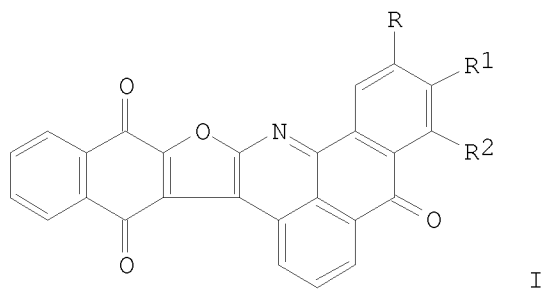
ORIGINAL REFERENCE NO.: 85:28609a,28612a

10/573,931

TITLE: Heterocyclic polynuclear compounds  
INVENTOR(S): Ribaldone, Giuseppe; Borsotti, Giampiero  
PATENT ASSIGNEE(S): Montedison S.p.A., Italy  
SOURCE: Ger. Offen., 17 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2608517	A1	19760916	DE 1976-2608517	19760302
JP 51115535	A	19761012	JP 1976-21879	19760302
US 4048173	A	19770913	US 1976-663151	19760302
GB 1491641	A	19771109	GB 1976-8749	19760304
PRIORITY APPLN. INFO.:			IT 1975-20988	A 19750306

GI



AB Triones (I; R = R1 = R2 = H; R = R1 = H, R2 = Cl; R = R1 = Cl, R2 = H; R = R1 = H, R2 = MeO), yellow-red dyes suitable for plastics, are prepared by condensation of 2,3-dichloro-1,4-naphthoquinone (II) with 1-azo-2-hydroxybenzanthrone (III) derivs. Thus, reaction of 20 g II with 20 g III for 2 hr in refluxing pyridine gives 27 g orange I (R = R1 = R2 = H).

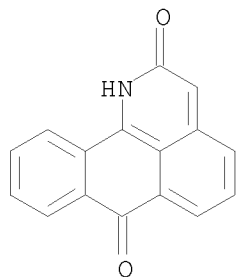
IT 31293-07-9 60964-18-3 60964-19-4  
60964-20-7

RL: USES (Uses)

(reaction with 2,3-dichloro-1,4-naphthoquinone)

RN 31293-07-9 CAPLUS

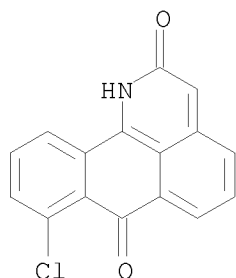
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



RN 60964-18-3 CAPLUS

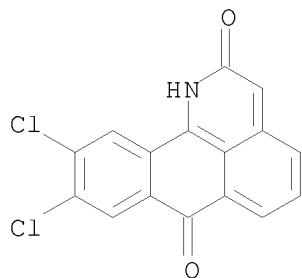
10/573,931

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 8-chloro- (CA INDEX NAME)



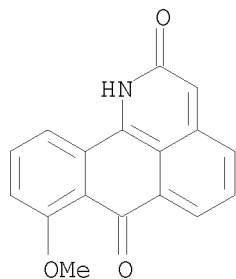
RN 60964-19-4 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 9,10-dichloro- (CA INDEX NAME)



RN 60964-20-7 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 8-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L6 ANSWER 74 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1976:525769 CAPLUS

DOCUMENT NUMBER: 85:125769

ORIGINAL REFERENCE NO.: 85:20181a,20184a

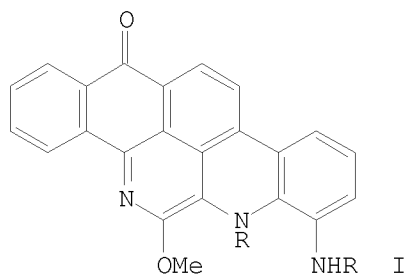
TITLE: New heterocyclic dyes: a derivative of  
anthrabenazonaphthyridine

AUTHOR(S): Boffa, Gioacchino; Mazzaferro, Nicola; Paffoni,  
Camillo

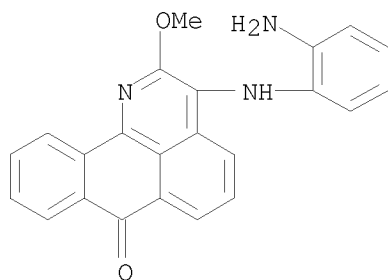
CORPORATE SOURCE: Ist. Ric. "G. Donegani", Soc. Montedison, Novara,  
Italy

10/573,931

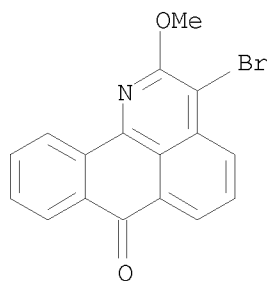
SOURCE: Annali di Chimica (Rome, Italy) (1975), 65(5-6),  
369-70  
CODEN: ANCRAI; ISSN: 0003-4592  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB I (R = Bz) [59836-90-7], a yellow daylight fluorescent dye for poly(Me methacrylate) [9011-14-7], was prepared by cyclizing 3-(2-aminoanilino)-2-methoxy-1-azabenzanthrone [59836-89-4] with KOH in pyridine at 120° for 4 hr to give I (R = H) [59836-91-8] and treating with BzCl.  
IT 59836-89-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclization of)  
RN 59836-89-4 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)amino]-2-methoxy- (CA INDEX NAME)



IT 31715-55-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with nitroaniline)  
RN 31715-55-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)



L6 ANSWER 75 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1976:32564 CAPLUS

DOCUMENT NUMBER: 84:32564

ORIGINAL REFERENCE NO.: 84:5329a,5332a

TITLE: New heterocyclic vat dyes

AUTHOR(S): Boffa, Gioacchino; Paffoni, Camillo; Mazzaferro, Nicola

CORPORATE SOURCE: Ist. Ric. "G. Donegani", Montedison, Novara, Italy

SOURCE: Annali di Chimica (Rome, Italy) (1974), 64(11-12), 825-31

CODEN: ANCRAI; ISSN: 0003-4592

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 84:32564

GI For diagram(s), see printed CA Issue.

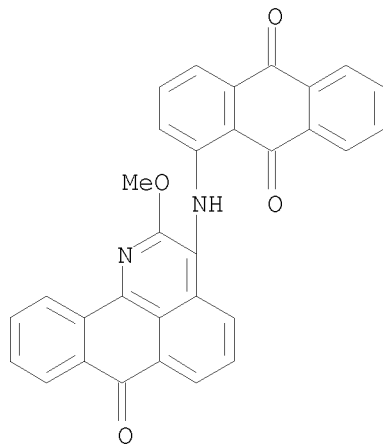
AB Vat dye (I, R = H, NH<sub>2</sub>, NHBz; R<sub>1</sub> = H, MeO) were prepared and their shades on cotton, chromicity values, fastness properties, and mass spectra were determined. The dyeing and fastness properties of I resemble C.I. Vat Green 3.

IT 57669-38-2P 57669-39-3P 57669-40-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and cyclization of)

RN 57669-38-2 CAPLUS

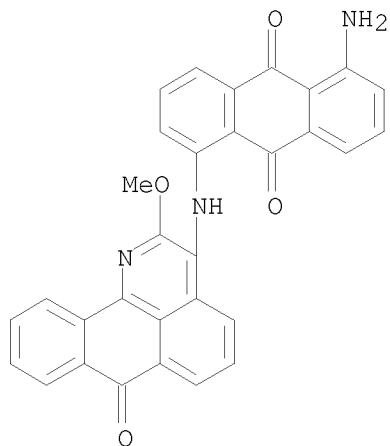
CN 9,10-Anthracenedione, 1-[(2-methoxy-7-oxo-7H-dibenzo[de,h]quinolin-3-yl)amino]- (CA INDEX NAME)



RN 57669-39-3 CAPLUS

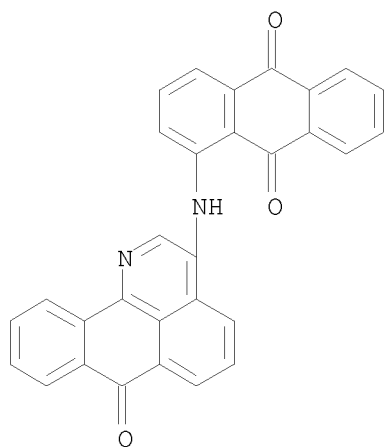
10/573,931

CN 9,10-Anthracenedione, 1-amino-5-[(2-methoxy-7-oxo-7H-dibenzo[de,h]quinolin-3-yl)amino]- (CA INDEX NAME)



RN 57669-40-6 CAPLUS

CN 9,10-Anthracenedione, 1-[(7-oxo-7H-dibenzo[de,h]quinolin-3-yl)amino]- (CA INDEX NAME)



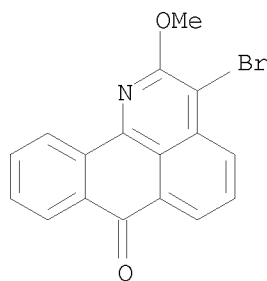
IT 31715-55-6 57669-37-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with aminoanthraquinone derivative)

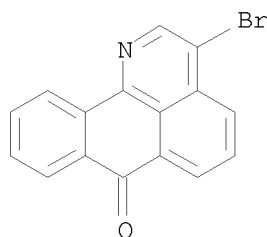
RN 31715-55-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)

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RN 57669-37-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L6 ANSWER 76 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1975:607572 CAPLUS  
DOCUMENT NUMBER: 83:207572  
ORIGINAL REFERENCE NO.: 83:32683a,32686a  
TITLE: 14H-5-Aza-7-thiadibenzo[b,d,e,f]chrysene derivatives  
INVENTOR(S): Boffa, Gioacchino; Mazzaferro, Nicola  
PATENT ASSIGNEE(S): Montedison S.p.A., Italy  
SOURCE: Ger. Offen., 9 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2500487	A1	19750717	DE 1975-2500487	19750108
IT 1006880	B	19761020	IT 1974-19331	19740111
NL 7500157	A	19750715	NL 1975-157	19750107
GB 1439125	A	19760609	GB 1975-936	19750109
BE 824265	A1	19750710	BE 1975-152271	19750110
FR 2257593	A1	19750808	FR 1975-648	19750110
JP 50101425	A	19750812	JP 1975-5070	19750110
US 4006146	A	19770201	US 1975-540166	19750110
CH 602739	A5	19780731	CH 1975-233	19750110
PRIORITY APPLN. INFO.:			IT 1974-19331	A 19740111

GI For diagram(s), see printed CA Issue.

AB I(R = H) (II) [56891-73-7] and I(R = Cl) (III) [56891-74-8] were prepared by reaction of IV with o-aminothiophenol [137-07-5], diazotization of the o-aminophenylthio derivative, and cyclization of the diazonium salt in the

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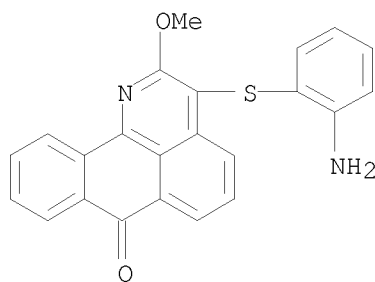
presence of CuSO<sub>4</sub>. Violet crystalline II and III dissolved in boiling o-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub> to give solns. with strong orange fluorescence. II dyed poly(Me methacrylate) [9011-14-7] a fluorescent deep violet color having good lightfastness.

IT 56891-70-4P 56891-72-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclization of)

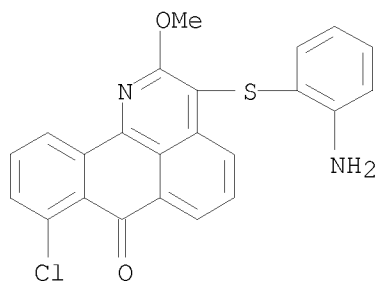
RN 56891-70-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-2-methoxy- (CA INDEX NAME)



RN 56891-72-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-[(2-aminophenyl)thio]-8-chloro-2-methoxy- (CA INDEX NAME)

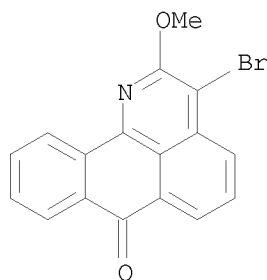


IT 31715-55-6 56891-71-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with aminobenzenethiol)

RN 31715-55-6 CAPLUS

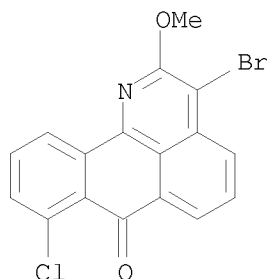
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)





10/573,931

RN 56891-71-5 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-8-chloro-2-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L6 ANSWER 77 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1975:595239 CAPLUS  
DOCUMENT NUMBER: 83:195239  
ORIGINAL REFERENCE NO.: 83:30733a,30736a  
TITLE: 2-(3-Hydroxy-1-isoquinolyl)benzoic acid and 7-oxo-7H-dibenzo[de,h]quinolin-2-ol  
INVENTOR(S): DE Feo, Francesco; Gonzati, Franco; Osti, Alberto  
PATENT ASSIGNEE(S): A.C.N.A.- Aziende Colori Nazionali Affini, S.p.A., Italy  
SOURCE: Ger. Offen., 23 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

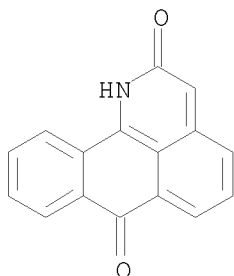
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2501742	A1	19750724	DE 1975-2501742	19750117
IT 1006999	B	19761020	IT 1974-19614	19740121
US 4011224	A	19770308	US 1974-536591	19741226
NL 7500525	A	19750723	NL 1975-525	19750116
FR 2258383	A1	19750818	FR 1975-1413	19750117
GB 1493053	A	19771123	GB 1975-2176	19750117
CA 1049527	A1	19790227	CA 1975-218227	19750120
CH 611883	A5	19790629	CH 1975-628	19750120
BE 824608	A1	19750722	BE 1975-152563	19750121
JP 50101361	A	19750811	JP 1975-8410	19750121
JP 58004022	B	19830124		
US 4011227	A	19770308	US 1976-679559	19760423
PRIORITY APPLN. INFO.:			IT 1974-19614	A 19740121
			IT 1974-25196	A 19740716
			US 1974-536591	A3 19741226

GI For diagram(s), see printed CA Issue.

AB 7-Oxo-7H-dibenzo[de,h]quinolin-2-ol (I) [31293-07-9], useful as a vat dye intermediate, was prepared by heating K phthalimide [1074-82-4] with PhCH<sub>2</sub>COCl [103-80-0] in PhCl at 120° for 8 hr to give N-(phenylacetyl)phthalimide [54280-03-4], treatment with AlCl<sub>3</sub> to form o-(3-hydroxy-1-isoquinolinyl)benzoic acid [57028-51-0], and cyclization

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with H2SO4.  
IT 31293-07-9P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation of)  
RN 31293-07-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

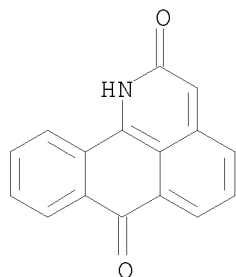
L6 ANSWER 78 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1975:412220 CAPLUS  
DOCUMENT NUMBER: 83:12220  
ORIGINAL REFERENCE NO.: 83:2047a,2050a  
TITLE: 3,3'-Thiobis(2-methoxy-1-azabenzanthrone)  
INVENTOR(S): Ribaldone, Giuseppe  
PATENT ASSIGNEE(S): Montedison S.p.A., Italy  
SOURCE: Ger. Offen., 9 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2440233	A1	19750227	DE 1974-2440233	19740822
DE 2440233	C2	19821202		
IT 998441	B	19760120	IT 1973-28086	19730822
NL 7411003	A	19750225	NL 1974-11003	19740816
FR 2245637	A1	19750425	FR 1974-28400	19740819
AU 7472492	A	19760219	AU 1974-72492	19740819
SU 504485	A3	19760225	SU 1974-2055759	19740820
GB 1429577	A	19760324	GB 1974-36492	19740820
CA 1043781	A1	19781205	CA 1974-207385	19740820
BE 819046	A1	19750221	BE 1974-147783	19740821
US 3943136	A	19760309	US 1974-499416	19740821
JP 50050428	A	19750506	JP 1974-95592	19740822
JP 58005209	B	19830129		
CH 589691	A5	19770715	CH 1974-11466	19740822
PRIORITY APPLN. INFO.:			IT 1973-28086	A 19730822

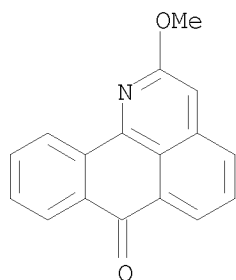
GI For diagram(s), see printed CA Issue.  
AB 3,3'-Thiobis(2-methoxy-1-azabenzanthrone) (I) [31715-56-7],  
useful as intermediate for the preparation of dyes, was prepared in  $\leq 95.5\%$   
yield by reaction of 2-methoxy-1-azabenzanthrone [40338-68-9]  
with S2Cl2 or SC12 in inert solvents.  
IT 31293-07-9

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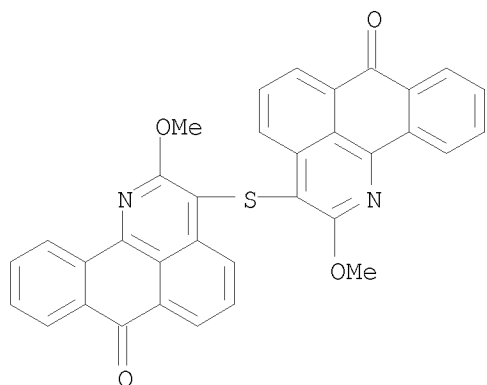
RL: RCT (Reactant); RACT (Reactant or reagent)  
(methylation of)  
RN 31293-07-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



IT 40338-68-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and reaction with sulfur chlorides)  
RN 40338-68-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy- (CA INDEX NAME)



IT 31715-56-7P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation of)  
RN 31715-56-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-methoxy- (CA INDEX NAME)



10/573,931

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)

L6 ANSWER 79 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1975:172614 CAPLUS

DOCUMENT NUMBER: 82:172614

ORIGINAL REFERENCE NO.: 82:27607a,27610a

TITLE: 2-Hydroxy-1-azabenzanthrone

INVENTOR(S): Ribaldone, Giuseppe; Borsotti, Giampiero; Gonzati, Franco

PATENT ASSIGNEE(S): Montedison S.p.A.; A.C.N.A.-Aziende Colori Nazionali Affini, S.p.A.

SOURCE: Ger. Offen., 14 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2434466	A1	19750206	DE 1974-2434466	19740718
DE 2434466	C2	19820916		
IT 994973	B	19751020	IT 1973-26722	19730718
NL 7409459	A	19750121	NL 1974-9459	19740712
AU 7471241	A	19760115	AU 1974-71241	19740715
GB 1418452	A	19751217	GB 1974-31353	19740716
BE 817725	A1	19750117	BE 1974-146621	19740717
FR 2237889	A1	19750214	FR 1974-24794	19740717
US 3960866	A	19760601	US 1974-489351	19740717
SU 535035	A3	19761105	SU 1974-2043729	19740717
CH 599941	A5	19780615	CH 1974-9923	19740717
CA 1039719	A1	19781003	CA 1974-205104	19740717
JP 50054623	A	19750514	JP 1974-82717	19740718
JP 58005208	B	19830129		

PRIORITY APPLN. INFO.: IT 1973-26722 A 19730718

GI For diagram(s), see printed CA Issue.

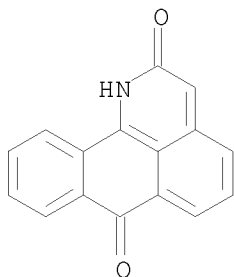
AB 2-Hydroxy-1-azabenzanthrone (I) [31293-07-9], useful as a dye intermediate, was manufactured in 90-93.8% yield by reaction of the esters II (R = Me or Et) with NH<sub>3</sub> in MeOH or H<sub>2</sub>O containing a strong base and(or) a reducing agent.

IT 31293-07-9P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation of, dye intermediates)

RN 31293-07-9 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)

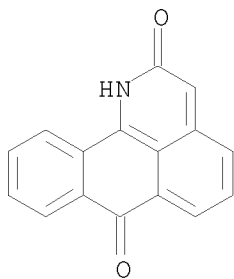


10/573,931

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(6 CITINGS)

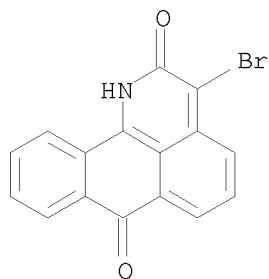
L6 ANSWER 80 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1973:406776 CAPLUS  
DOCUMENT NUMBER: 79:6776  
ORIGINAL REFERENCE NO.: 79:1135a,1138a  
TITLE: Vat dye  
INVENTOR(S): Boffa, Gioacchino; Crotti, Argento; Pieri, Giampiero;  
Mangini, Angelo; Tundo, Antonio  
PATENT ASSIGNEE(S): Montecatini Edison S.p.A.  
SOURCE: Ital., 15 pp.  
CODEN: ITXXAX  
DOCUMENT TYPE: Patent  
LANGUAGE: Italian  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	IT 869691		19700819	IT	19690805
AB	6,15-Dimethoxy-5,14-diazaisoviolanthrone (I) [31715-57-8] was prepared and used to dye cellulosic fibers in bright blue shades. I was prepared from 1-aza-2-hydroxybenzanthrone via 1-aza-2-hydroxy-3-bromobenzanthrone [31715-46-5], 1-aza-2-methoxy-3-bromobenzanthrone [31715-55-6], and 3,3'-thiobis(1-aza-2-methoxybenzanthrone) [31715-56-7] by known synthetic methods.				
IT	31293-07-9				
	RL: RCT (Reactant); RACT (Reactant or reagent) (bromination of)				
RN	31293-07-9	CAPLUS			
CN	1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)				

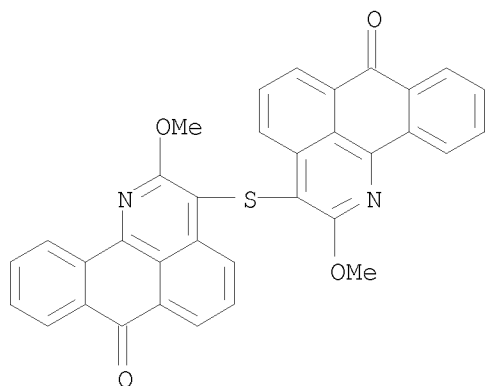


IT 31715-46-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(methylation of)  
RN 31715-46-5 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-bromo- (CA INDEX NAME)

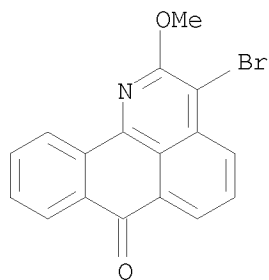
10/573,931



IT 31715-56-7  
RL: USES (Uses)  
(reaction with potassium hydroxide)  
RN 31715-56-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-methoxy- (CA INDEX NAME)



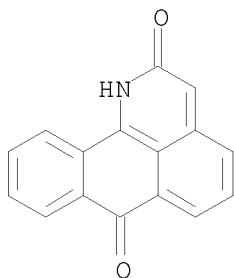
IT 31715-55-6  
RL: USES (Uses)  
(reaction with sodium sulfide)  
RN 31715-55-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

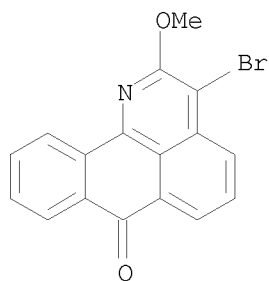
L6 ANSWER 81 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1973:84298 CAPLUS

DOCUMENT NUMBER: 78:84298  
 ORIGINAL REFERENCE NO.: 78:13453a,13456a  
 TITLE: New heterocyclic structures. Synthesis of  
 2-hydroxy-1-azabenzanthrone and some related compounds  
 AUTHOR(S): Boffa, Gioacchino; Pieri, Giampiero; Mazzaferro,  
 Nicola  
 CORPORATE SOURCE: Cent. Ric. Chim. Org., Soc. Montedison, Novara, Italy  
 SOURCE: Gazzetta Chimica Italiana (1972), 102(9), 697-708  
 CODEN: GCITA9; ISSN: 0016-5603  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI For diagram(s), see printed CA Issue.  
 AB 1-4-Naphthoquinone (I) underwent a Diels-Alder reaction with Me 1  
 3,5-hexadienoate (II) in refluxing EtOH to give Me  
 1' $\beta$ ,4',4'a $\beta$ ,9',9'a $\beta$ ,10'-hexahydro-9'10'-dioxanthrylaceta-  
 (III), whereas I and II in Cl(CH<sub>2</sub>)<sub>2</sub>Cl containing AlCl<sub>3</sub> at 50° gave  
 1',4'-dihydro-9',10'-dihydroxyanthrylacetic acid lactone (IV). Treatment  
 of III or IV with NH<sub>3</sub> and MeOH under N, followed by addition of aqueous KOH  
 gave  
 2-hydroxy-7H-dibenzo[de,h]quinolin-7-one (V), which was brominated in  
 concentrated H<sub>2</sub>SO<sub>4</sub> at 50° and then reacted with Na<sub>2</sub>S in refluxing DMF for  
 3 hr to yield 3,3'-thiobis[2-methoxy-7H-dibenzo[de,h]quinolin-7-one (VI).  
 Cyclization of VI in Me<sub>2</sub>CHCH<sub>2</sub>OH containing KOH at 120-5° under N for 4  
 hr gave the benzo[b]napht[1',2',3':1,8]isoquino[5,-4-hi]thebenidine-9,18-  
 dione derivative (VIII).  
 IT 31293-07-9P 31715-55-6P 31715-56-7P  
 40338-68-9P 40338-69-0P 40338-70-3P  
 40338-72-5P 40338-73-6P 40338-74-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 31293-07-9 CAPLUS  
 CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)

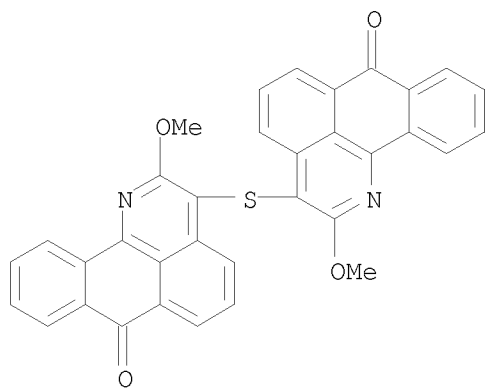


RN 31715-55-6 CAPLUS  
 CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)

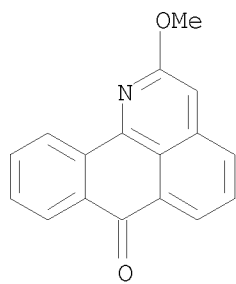
10/573,931



RN 31715-56-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-methoxy- (CA INDEX NAME)



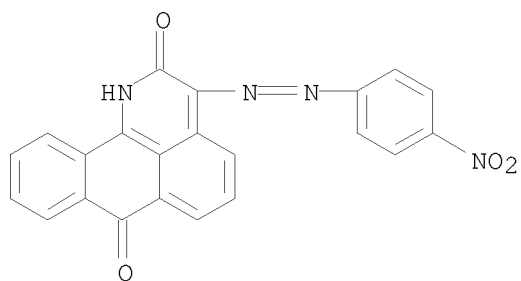
RN 40338-68-9 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy- (CA INDEX NAME)



RN 40338-69-0 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-[2-(4-nitrophenyl)diazenyl]- (CA INDEX NAME)

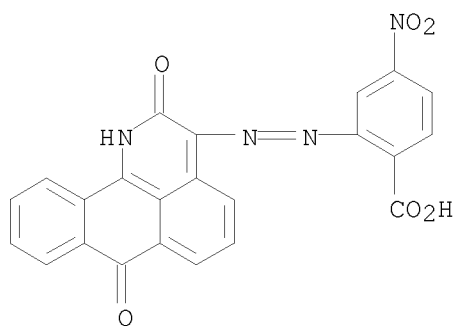


10/573,931



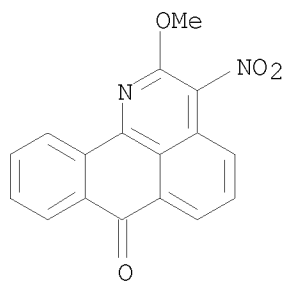
RN 40338-70-3 CAPLUS

CN Benzoic acid, 2-[2-(2,7-dihydro-2,7-dioxo-1H-dibenzo[de,h]quinolin-3-yl)diazenyl]-4-nitro- (CA INDEX NAME)



RN 40338-72-5 CAPLUS

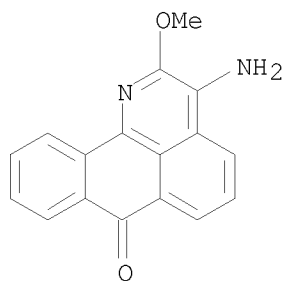
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-3-nitro- (CA INDEX NAME)



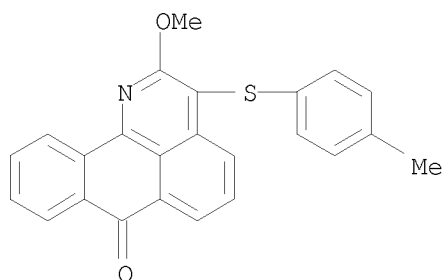
RN 40338-73-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-amino-2-methoxy- (CA INDEX NAME)

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RN 40338-74-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 2-methoxy-3-[(4-methylphenyl)thio]- (CA  
INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L6 ANSWER 82 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1973:59763 CAPLUS

DOCUMENT NUMBER: 78:59763

ORIGINAL REFERENCE NO.: 78:9475a,9478a

TITLE: New, chlorine-fast, blue vat dyes

AUTHOR(S): Boffa, G.; Gemini, V.

CORPORATE SOURCE: Cent. Ric. Chim. Org., Montecatini Edison S.p.A.,  
Novara, Italy

SOURCE: Textilveredlung (1972), 7(12), 810-16

CODEN: TXLVAE; ISSN: 0040-5310

DOCUMENT TYPE: Journal

LANGUAGE: German

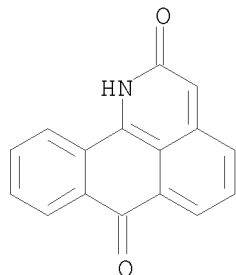
AB Vat dyes (I, R = alkyl) prepared from 2-hydroxy-1-azabenzanthrone (II, R = R1 = H) (III) [31293-07-9] are described. One of these dyes, Romanthrene Blue 1324 (I, R = Me) (IV) [31715-57-8], has a distinctive, brilliant turquoise-blue shade, a high color value and shows little shade change on cotton with dyebath temperature or concentration, and is resistant to overoxidn, to chlorine bleach and to light. IV is prepared by brominating III (prepared by Diels-Alder condensation 1,4-naphthoquinone and CH2:CHCH:CHCH2CO2Me and treatment of the product with NH3, KOH, and air), treating the product with Me2SO4 to give 3-bromo-2-methoxy-1-azabenzanthrone (II, R = Me, R1 = Br) (V) [31715-55-6], condensing V with Na2S, and heating the isolated sulfide with iso-BuOH containing KOH. The other I are similarly prepared The properties of IV are compared with those of several indanthrones.

IT 31293-07-9 31715-55-6

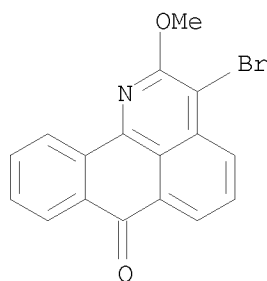
RL: USES (Uses)

10/573,931

(vat dyes from)  
RN 31293-07-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



RN 31715-55-6 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 83 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1971:420153 CAPLUS

DOCUMENT NUMBER: 75:20153

ORIGINAL REFERENCE NO.: 75:3223a,3226a

TITLE: Aromatic demethoxylation in the cyclization of  
3-( $\beta$ -dialkoxyarylethylamino)phthalides to  
2,3-dihydro-7H-dibenzo[da,h]quinolines

AUTHOR(S): Walker, Gordon Northrop; Kempton, Robert J.

CORPORATE SOURCE: Chem. Res. Dep., CIBA Pharm. Co., Inc., Summit, NJ,  
USA

SOURCE: Journal of Organic Chemistry (1971), 36(10), 1413-16  
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 75:20153

GI For diagram(s), see printed CA Issue.

AB Whereas polyphosphoric acid cyclization of

3-( $\beta$ -phenylethylamino)phthalide gives

5,6,8,12b-tetrahydro-8-isoindolo[1,2- $\alpha$ ]isoquinolone (I) similar

cyclizations of 3,4-methylenedioxypheyl and 3,4-dimethoxyphenyl (I)

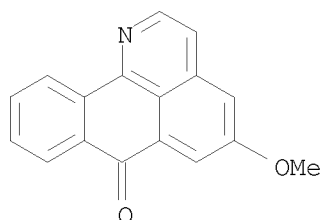
analogs proceed in the direction of resp.

5,6-dialkoxy-2,3-dihydro-7-dibenzo[de,h]quinolones. In I closure, the

6-methoxy group in the tetracyclic base is partly demethylated and for the  
most part lost, giving 5-methoxy-2,3-dihydro-7-dibenzo[de,h]quinolone (II)

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as the major product, together with monophenolic congener.  
IT 28399-74-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 28399-74-8 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 5-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS  
RECORD (19 CITINGS)

L6 ANSWER 84 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1971:113239 CAPLUS  
DOCUMENT NUMBER: 74:113239  
ORIGINAL REFERENCE NO.: 74:18330h,18331a  
TITLE: Diazaisoviolanthrone vat dyes  
INVENTOR(S): Boffa, Gioacchino; Crotti, Argento; Pieri, Giampiero;  
Mangini, Angelo; Tundo, Antonio  
PATENT ASSIGNEE(S): Montecatini Edison S.p.A.  
SOURCE: Ger. Offen., 19 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 2038637	A	19710211	DE 1970-2038637	19700804
DE 2038637	B2	19790712		
DE 2038637	C3	19800313		
SU 566529	A3	19770725	SU 1970-1454603	19700728
NL 7011367	A	19710209	NL 1970-11367	19700731
NL 169604	B	19820301		
NL 169604	C	19820802		
DK 134409	B	19761101	DK 1970-3967	19700731
FR 2056986	A5	19710507	FR 1970-28631	19700803
FR 2056986	B1	19730427		
CS 166730	B2	19760329	CS 1970-5418	19700803
CA 944764	A1	19740402	CA 1970-89919	19700804
US 3678053	A	19720718	US 1970-69519	19700805
GB 1318287	A	19730523	GB 1970-37756	19700805
CH 540319	A	19730928	CH 1970-11803	19700805
RO 58337	A1	19750815	RO 1970-64152	19700805
PRIORITY APPLN. INFO.:			IT 1969-20581	A 19690805
			IT 1970-25757	A 19700610

GI For diagram(s), see printed CA Issue.  
AB The 6,15-dialkoxy-5,14-diazaisoviolanthrones I (R = Me, Et, Pr, Bu, or iso-Bu) are prepared from 1-aza-2-hydroxybenzanthrone (II) and used as vat dyes for cellulose fibers. To prepare I (R = Et), II is brominated in

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H<sub>2</sub>SO<sub>4</sub>, alkylated with Et<sub>2</sub>SO<sub>4</sub> to give 1-aza-2-ethoxy-3-bromobenzanthrone, treated with Na<sub>2</sub>S to give 3,3'-thiobis(1-aza-2-ethoxybenzanthrone), treated with Na bisulfite in iso-BuOH containing KOH, and treated with a mixture

of PhNO<sub>2</sub>, p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>Et, and Na<sub>2</sub>CO<sub>3</sub> to give I (R = Et).

IT 31715-46-5P 31715-47-6P 31715-48-7P

31715-49-8P 31715-50-1P 31715-52-3P

31715-53-4P 31715-55-6P 31715-56-7P

31771-18-3P, 7H-Dibenzo[de,h]quinolin-7-one,

3,3'-thiobis[2-propoxy- 31771-20-7P,

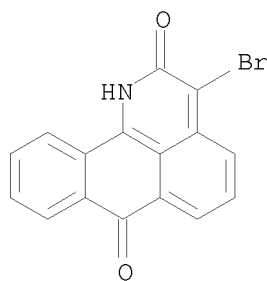
7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-butoxy-

RL: IMF (Industrial manufacture); PREP (Preparation)

(preparation of)

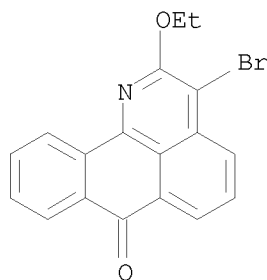
RN 31715-46-5 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione, 3-bromo- (CA INDEX NAME)



RN 31715-47-6 CAPLUS

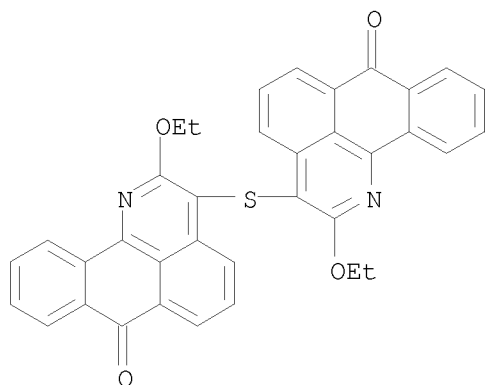
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-ethoxy- (CA INDEX NAME)



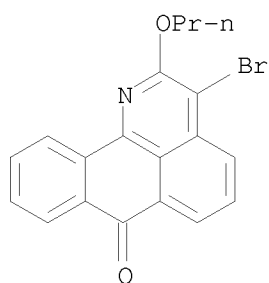
RN 31715-48-7 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-ethoxy- (CA INDEX NAME)

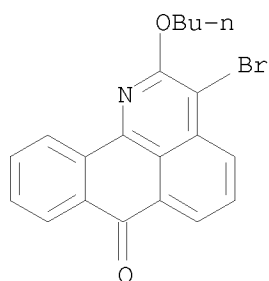
10/573,931



RN 31715-49-8 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-propoxy- (CA INDEX NAME)

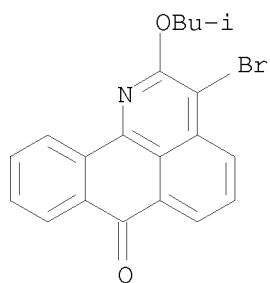


RN 31715-50-1 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-butoxy- (CA INDEX NAME)



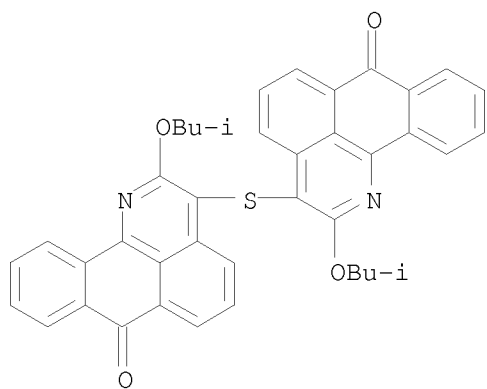
RN 31715-52-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-(2-methylpropoxy)- (CA INDEX NAME)

10/573,931



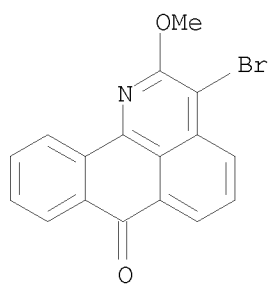
RN 31715-53-4 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-isobutoxy- (8CI) (CA INDEX NAME)



RN 31715-55-6 CAPLUS

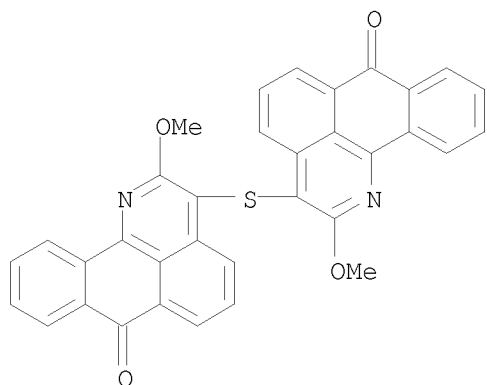
CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-2-methoxy- (CA INDEX NAME)



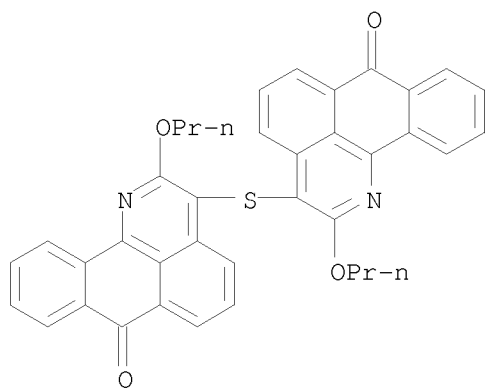
RN 31715-56-7 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-methoxy- (CA INDEX NAME)

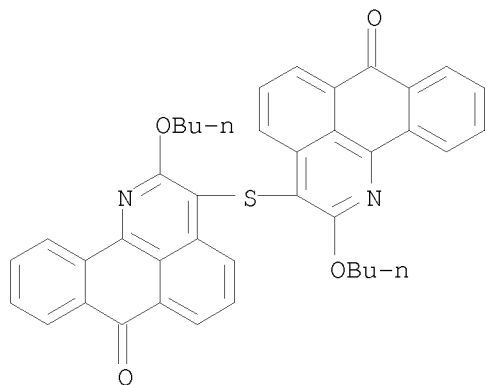
10/573,931



RN 31771-18-3 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-propoxy-] (CA INDEX NAME)



RN 31771-20-7 CAPLUS  
CN 7H-Dibenzo[de,h]quinolin-7-one, 3,3'-thiobis[2-butoxy-] (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(6 CITINGS)

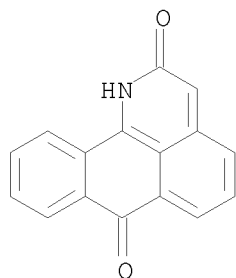


10/573,931

L6 ANSWER 85 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1971:99877 CAPLUS  
DOCUMENT NUMBER: 74:99877  
ORIGINAL REFERENCE NO.: 74:16257a,16260a  
TITLE: 1-Aza-2-hydroxybenzanthrone  
INVENTOR(S): Boffa, Gioacchino; Chiusoli, Gian P.  
PATENT ASSIGNEE(S): Montecatini Edison S.p.A.  
SOURCE: Ger. Offen., 7 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2010665	A	19710218	DE 1970-2010665	19700306
DE 2010665	C2	19811015		
NL 7002934	A	19700909	NL 1970-2934	19700302
NL 160594	B	19790615		
BE 746871	A	19700907	BE 1970-746871	19700305
FR 2037639	A5	19701231	FR 1970-7837	19700305
GB 1256482	A	19711208	GB 1970-1256482	19700305
US 3912739	A	19751014	US 1970-16989	19700305
CH 525891	A	19720731	CH 1970-525891	19700306
PRIORITY APPLN. INFO.:			IT 1969-13784	A 19690307

GI For diagram(s), see printed CA Issue.  
AB The title compound (I) useful as an intermediate for the synthesis of azo and vat dyes was prepared from 1,4-naphthoquinone (II) via 1-methoxycarbonylmethyl-1,4,4a,9a-tetrahydroanthra-quinone (III) in 2 steps. Thus, refluxing 34.3 g II and 27.4 g CH<sub>2</sub>:CHCH:CHCH<sub>2</sub>CO<sub>2</sub>Me in 99% EtOH under N gave 51 g III which, on refluxing 3 days with NH<sub>3</sub>-saturated anhydrous MeOH gave 34.6 g I.  
IT 31293-07-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 31293-07-9 CAPLUS  
CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 86 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1959:72570 CAPLUS  
DOCUMENT NUMBER: 53:72570  
ORIGINAL REFERENCE NO.: 53:13148g-i,13149a  
TITLE: Dyes from benzoyl-3-azabenzanthrone by alkali fusion

and from benzoyl-1-bromobenzoyl-3-azabenzanthrone by alkali fusion after sodium disulfide treatment

AUTHOR(S): Yokote, Masao  
 CORPORATE SOURCE: Nippon Univ., Tokyo  
 SOURCE: Kogyo Kagaku Zasshi (1957), 60, 1045-8  
 CODEN: KGKZA7; ISSN: 0368-5462

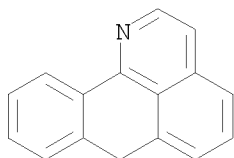
DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

AB Benzoyl-3-azabenzanthrone (I) (0.6 g.), m. 179°, was fused 1 hr. at 110-20° with 9.5 cc. EtOH and 6.2 g. KOH to give, by adding into H<sub>2</sub>O, oxidizing with air and dissolving in EtOH, crude 2,2'-dibenzanthronyl (II), m. approx. 401-15°. II (0.268 g.) was fused with 0.018 g. KOH and 0.697 g. AcOK at 280° 1 hr., poured into H<sub>2</sub>O, oxidized with air, extracted with alkali solution, HCl, EtOH, AcOH, and PhCl, and purified by making a leuco compound to give 0.148 g. isoviolanthrone A (III). The absorption spectra of the product and pure III are compared. Alkali fusion of I successively at 110-270° gave III in a higher yield. Benzoyl-1-bromo-3-azabenzanthrone (0.37 g.), m. 248°, was treated 11 hrs. with 3 g. Na<sub>2</sub>S and 0.41 g. S at 150-60°, washed with boiling H<sub>2</sub>O and hot EtOH, and dried to give 0.244 g. yellow-brown product, presumably benzoyl-1(or 1')-thiadibenzoanthronyl. The product (0.155 g.) was then fused 1 hr. with 0.99 g. KOH at 140°, washed with H<sub>2</sub>O, oxidized with air, washed further with aqueous alkali, H<sub>2</sub>O, hot AcOH, and hot PhCl to yield 0.117 g. dark violet product, which was identified as III by absorption spectra.

IT 200-26-0, 7H-Dibenzo[de,h]quinoline  
 (derivs., dyes from)

RN 200-26-0 CAPLUS

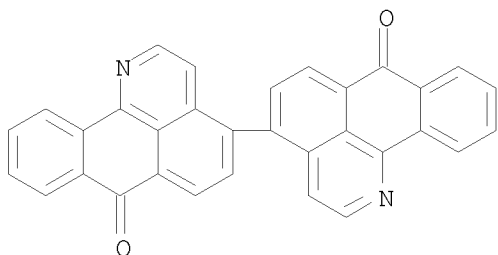
CN 7H-Dibenzo[de,h]quinoline (CA INDEX NAME)



IT 122388-50-5P, [4,4'-Bi-7H-dibenzo[de,h]quinoline]-7,7'-dione  
 RL: PREP (Preparation)  
 (preparation of)

RN 122388-50-5 CAPLUS

CN [4,4'-Bi-7H-dibenzo[de,h]quinoline]-7,7'-dione (CA INDEX NAME)



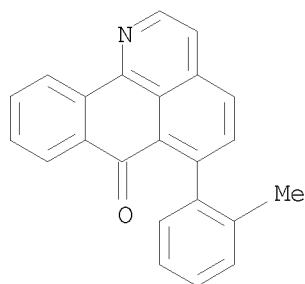
DOCUMENT NUMBER: 52:1842  
 ORIGINAL REFERENCE NO.: 52:342d-g  
 TITLE: Syntheses in the field of derivatives of pyrene  
 AUTHOR(S): Arbuzov, B. A.; Grechkin, N. P.  
 SOURCE: Izvest. Kazan. Filiala Akad. Nauk S.S.S.R., Ser. Khim. Nauk (1955), (No. 2), 31-7  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

AB To RMgBr from 10 g.  $\omega$ -BrC<sub>6</sub>H<sub>4</sub>Me was added 6 g. 1-aza-7-benzanthrone yielding, after refluxing 0.5 hr. in Et<sub>2</sub>O and 1 hr. in C<sub>6</sub>H<sub>6</sub> followed by the usual treatment with aqueous AcOH and steam distillation, 60% 6-o-tolyl-1-aza-7-benzanthrone, m. 179-80° (BuOAc). This heated 15 min. at 375-90° and distilled, b<sub>2.6</sub> 385-435°, gave 18% 4,5:7,8-dibenzo-3-azapyrene, m. 255-7° (C<sub>6</sub>H<sub>6</sub>). Reduction of cyclohexanone with Al-Hg gave 1,1'-dihydroxybicyclohexyl, which dehydrated with 10% H<sub>2</sub>SO<sub>4</sub> to 1,1'-bicyclohexenyl, which treated with 1,4-naphthoquinone gave dodecahydridibenzanthraquinone, which oxidized with O in BuOH in the presence of alkali gave octahydro-1,2:3,4-dibenzanthraquinone, m. 239-42°. This (24.5 g.) added to PhMgBr from 125 g. PhBr at 5-10°, kept 1 hr. at room temperature, and refluxed 5 hrs. gave after aqueous treatment 42% octahydro-1,2:3,4-dibenzo-8,10-dihydroxy-9,10-diphenylanthracene, m. 262-4° (EtOH-C<sub>6</sub>H<sub>6</sub>). This pyrolyzed in a CO<sub>2</sub> stream at 400° 3 hrs. in the presence of powdered Cu gave 0.6% product, m. 246-7° (after chromatographic purification on SiO<sub>2</sub>), which contained 88.8% C and 4.35% H. Heating 54 g. 9-benzoylphenanthrene with 200 g. AlCl<sub>3</sub> and 55 g. NaCl 4.5 hrs. at 145-50° gave after treatment with aqueous HCl 2.6 g. 5,6-benzo-12-naphthacenone, m. 214-15° (BuOAc). This with excess  $\omega$ -BrC<sub>6</sub>H<sub>4</sub>Me gave after refluxing in Et<sub>2</sub>O and finally in C<sub>6</sub>H<sub>6</sub> 1.5 hrs. a low yield of 5,6-benzo-11- $\omega$ -tolyl-12-naphthacenone, m. 187-90° (AcOH). The compds. were prepared for studies of blastomogenic activity.

IT 114929-49-6P, 7H-Dibenzo[de,h]quinolin-7-one, 6-o-tolyl-  
 RL: PREP (Preparation)  
 (preparation of)

RN 114929-49-6 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 6-(2-methylphenyl)- (CA INDEX NAME)



L6 ANSWER 88 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1956:54545 CAPLUS  
 DOCUMENT NUMBER: 50:54545  
 ORIGINAL REFERENCE NO.: 50:10411h-i,10412d-g  
 TITLE: Nitrogen analog of Indanthrene Olive Green B from benzoyl-3-azabenzanthrone  
 AUTHOR(S): Yokote, Masao; Kobayashi, Seinosuke  
 CORPORATE SOURCE: Nippon Univ., Tokyo

SOURCE: Kogyo Kagaku Zasshi (1955), 58, 677-8  
 CODEN: KGKZA7; ISSN: 0368-5462

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

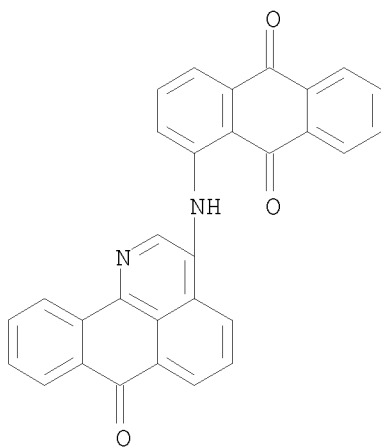
GI For diagram(s), see printed CA Issue.

AB cf. preceding abstract A mixture of 0.250 g. Bz-1-bromo-Bz-3-azabenzanthrone, m. 253°, 0.134 g. 1-aminoanthraquinone, 0.240 g. NaOAc, 0.035 g. CuCl<sub>2</sub>, and 5.250 g. PhNO<sub>2</sub> was refluxed on an oil-bath for 12 hrs., washed and extracted with hot EtOH and hot glacial AcOH, boiled with acidic H<sub>2</sub>O, and the residue was boiled with o-dichlorobenzene to give an orange-red precipitate (0.144 g.) and violet soluble substance (0.072 g.). The precipitate was subjected to alkali fusion with 8.0 g. KOH, 6.4 g. PhOH, and 1.6 g. EtOH at 135-145° for 2 hrs., followed by boiling with 100 cc. H<sub>2</sub>O, acidifying, and filtering, to give a green dye (0.142 g.). The purification with PhCl gave a green-blue dye (0.034 g.) which was presumed to have structure I on the bases of similarity of absorption spectra and n-values with those of Indanthrene Olive Green B.

IT 57669-40-6, Anthraquinone, 1-(7-oxo-7H-dibenzo[de,h]quinolin-3-ylamino)- (dye from)

RN 57669-40-6 CAPLUS

CN 9,10-Anthracenedione, 1-[(7-oxo-7H-dibenzo[de,h]quinolin-3-yl)amino]- (CA INDEX NAME)



L6 ANSWER 89 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1956:54544 CAPLUS

DOCUMENT NUMBER: 50:54544

ORIGINAL REFERENCE NO.: 50:10411f-h

TITLE: Azo dyes from 8-amino-1-azanthraquinone

AUTHOR(S): Yokote, Masao; Kamata, Toshio

CORPORATE SOURCE: Nippon Univ., Tokyo

SOURCE: Kogyo Kagaku Zasshi (1955), 58, 574-6  
 CODEN: KGKZA7; ISSN: 0368-5462

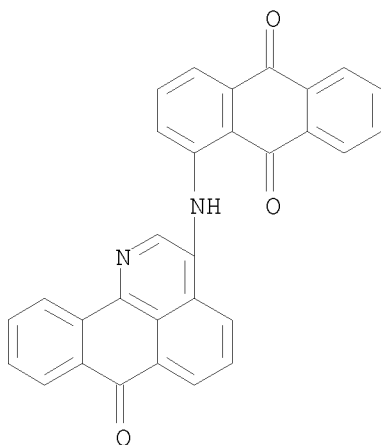
DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. C.A. 49, 10291d. 8-Amino-1-azanthraquinone (I) (1 mole), dissolved in concentrated H<sub>2</sub>SO<sub>4</sub> and then mixed under cooling with 1.1 mole NaNO<sub>2</sub> and 25% NaOH solution until weakly acid, was coupled with 1.1 mole 2-naphthol (II) (with

addition of 0.8 cc. 10% NaOH solution, 0.4 g. Na<sub>2</sub>CO<sub>3</sub>, and 15 cc. H<sub>2</sub>O) by stirring at 5-10° for 24 hrs., followed by heating on a water bath for 1 hr. The purified azo compound, recrystd. from "tetrachloroacetylene" (III), was dark red-violet needles, m. >300°, soluble in hot EtOH, slightly soluble in cold EtOH or xylene, insol. in H<sub>2</sub>O, and dyed acetate rayon to orange-red. A similar azo dye was obtained by coupling 1-aminoanthraquinone (IV) with II. The absorption spectra of both compds. in the range of 3000-6000 Å. were recorded; the two compds. showed a sharp maximum at approx. 5250 Å. and another lower maximum at approx. 4400 Å. Similarly, 1 mole I and 2.3 moles naphthol AS (V) gave a dye, dark-red needles, m. 303°, recrystd. from III, soluble in III, PhNO<sub>2</sub>, or PhCl, slightly soluble in C<sub>6</sub>H<sub>6</sub> or EtOH, and dyed acetate rayon to red-violet. The azo dye from IV and V was also prepared

IT 57669-40-6, Anthraquinone,  
1-(7-oxo-7H-dibenzo[de,h]quinolin-3-ylamino)-  
(dye from)  
RN 57669-40-6 CAPLUS  
CN 9,10-Anthracenedione, 1-[(7-oxo-7H-dibenzo[de,h]quinolin-3-yl)amino]- (CA  
INDEX NAME)



L6 ANSWER 90 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1955:42968 CAPLUS  
DOCUMENT NUMBER: 49:42968  
ORIGINAL REFERENCE NO.: 49:8280a-e  
TITLE: Synthesis of 9,18-diazaisoviolanthrone  
AUTHOR(S): King, J.; Ramage, G. R.  
CORPORATE SOURCE: Huddersfield Tech. Coll., UK  
SOURCE: Journal of the Chemical Society (1954) 936-8  
CODEN: JCSOA9; ISSN: 0368-1769  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB o-C<sub>6</sub>H<sub>4</sub>(CO)<sub>2</sub>NCH<sub>2</sub>Cl (I) (8 g.) and 3.8 g. anthracene condensed with AlCl<sub>3</sub> in CS<sub>2</sub> gave 1.15 g. 9,10-bis(phthalimidomethyl)anthracene (II), m. above 360°. I (24 g.), 11.4 g. anthracene, and ZnCl<sub>2</sub> in PhNO<sub>2</sub> similarly gave 10.9 g. II. II with CrO<sub>3</sub>-AcOH gave anthraquinone, m. 285°. II (8.6 g.) added to AlCl<sub>3</sub>-NaCl at 130-40°, and the mixture hydrolyzed and extracted with hot 10% HCl gave 2.48 g. 3,9-diphenyl-2,8-diazaperylene-2',2''-dicarboxylic acid di-HCl salt dihydrate (III); the mother liquors with NH<sub>3</sub> yielded 0.05 g. free anhydrous acid (IIIa), m. above 360°. III (1 g.) treated with SOCl<sub>2</sub> and the

product refluxed with EtOH gave 0.94 g. di-Et ester of IIIa, m. 276°. 1-Aza-meso-benzanthrone (IV), PhNO<sub>2</sub>, Br, and iodine refluxed 5 h., gave 91% 3-bromo-1-aza-meso-benzanthrone (V), m. 256°. V (1 g.) oxidized with CrO<sub>3</sub>-AcOH gave 1-anthraquinonecarboxylic acid; Et ester, m. 167°. IV (1 g.) treated with alc. KOH and H<sub>2</sub>O<sub>2</sub>, the mixture extracted with EtOH, and the 0.57 g. residue twice sublimed at 400/10-3 mm., gave a product believed to be 4,4'-di-1-aza-meso-benzanthronyl (VI), m. above 360°. III (0.72 g.) heated with fuming H<sub>2</sub>SO<sub>4</sub> and the product sublimed at 450/10-3 mm. gave 0.18 g. 9,18-diazaisoviolanthrone (VII), absorption maximum (concentrated H<sub>2</sub>SO<sub>4</sub>) 2500, 2930, and 6630 Å. VII dissolved

in

hot dilute NaOH containing Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> gave a blue vat; air or H<sub>2</sub>O<sub>2</sub> precipitated

VII. III

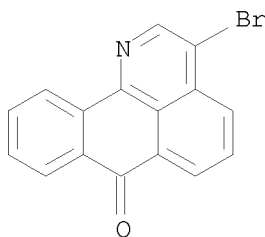
(0.2 g.) heated with P<sub>2</sub>O<sub>5</sub>-H<sub>3</sub>PO<sub>4</sub>, the product made alkaline with NaOH, Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> added, and the solution oxidized, gave 0.08 g. VII. IV heated with KOH-KOAc at 240-250°, then oxidized, gave 0.30 g. VII. V (0.45 g.) and VI (0.2 g.) similarly gave 0.25 g. and 0.11 g. VII, resp.

IT 57669-37-1P, 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo-  
122388-50-5P, [4,4'-Bi-7H-dibenzo[de,h]quinoline]-7,7'-dione,  
meso-

RL: PREP (Preparation)  
(preparation of)

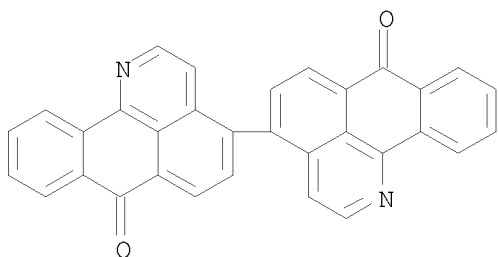
RN 57669-37-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one, 3-bromo- (CA INDEX NAME)



RN 122388-50-5 CAPLUS

CN [4,4'-Bi-7H-dibenzo[de,h]quinoline]-7,7'-dione (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

L6 ANSWER 91 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1950:26123 CAPLUS

DOCUMENT NUMBER: 44:26123

ORIGINAL REFERENCE NO.: 44:5112c-i, 5113a-i, 5114a

TITLE: Anthraquinone vat dyes

INVENTOR(S): Holbro, Theodor; Kern, Walter; Sutter, Paul

PATENT ASSIGNEE(S): C I B A Ltd.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2459941		19490125	US 1944-538540	19440602

GI For diagram(s), see printed CA Issue.

AB Vat dyes for dyeing and printing animal and vegetable fibers per se or as leuco ester salts, having the general formula:  $\text{RNHCO}(\text{H}_2\text{N})\text{Aq}(\text{NH}_2)\text{CONHR}$  (wherein Aq stands for an anthraquinone radical carrying both -CONHR groups in the  $\beta$ -position and both  $\text{NH}_2$  groups in the  $\alpha$ -position ortho thereto, and wherein each R stands for a radical of a vatable compound containing a single anthraquinone nucleus) are obtained by causing anthraquinone carboxylic acids containing at least 2 carboxyl groups of which one group is in the  $\beta$ -position, to react with amines of which at least 1 amine contains a radical consisting of at least 2 rings. 2,6-Anthraquinonedicarboxylic acid chloride 16.7 is heated to 150-60° and 34.2 parts 1-amino-5-benzamidoanthraquinone (I) in 750 parts o-Cl<sub>2</sub>C<sub>6</sub>H<sub>4</sub> added. After 2 hrs.' stirring at 150-60° N,N'-bis(5-benzamido-1-anthraquinonyl)-2,6-anthraquinonedicarboxamide (II) was obtained as a yellow powder. It dyes cotton yellow. I and 2,7-anthraquinonedicarboxylic acid chloride gave the 2,7-isomer of II which also dyes cotton yellow. 1,5-Dichloro-2,6-anthraquinonedicarboxylic acid and I gave the 1,5-dichloro analog of II which dyes cotton reddish yellow. I and 1,5-dinitro-2,6-anthraquinonedicarboxylic acid chloride give the 1,5-dinitro analog of II. From a black olive vat in which the 2 nitro groups are reduced to amino groups, cotton is dyed bluish red-brown shades. 1,5-Dinitro-2,6-anthraquinonedicarboxylic acid chloride reacts with the following amines to give dyes which color cotton in the color given: 1-aminoanthraquinone (bordeaux), 2-amino isomer (bluish bordeaux), 1-amino-4-benzamidoanthraquinone (blue bordeaux), 1-amino-8-benzamidoanthraquinone (bluish red-brown), 1-amino-5-benzamido-8-methoxyanthraquinone (yellow bordeaux), 1-amino-5-acetamidoanthraquinone (bluish red-brown), 1-amino-5-(o-chlorobenzamido)anthraquinone (bluish red-brown), (the m- and p-isomers give the same color), 1-amino-5-(p-methoxybenzamido)-anthraquinone (bordeaux), 1-amino-5-cinnamoylaminoanthraquinone (bluish red-brown), 1-amino-4-methoxyanthraquinone (bordeaux), 1-amino-4-anilinoanthraquinone (blue-violet), 1-amino-4-chloroanthraquinone (bluish bordeaux), 5-chloro isomer (bordeaux), 1-amino-6 (and 7)-chloroanthraquinone (mixture) (bluish bordeaux), 4-aminoanthraquinone-2,1(N),1',2'(N)-benzacridone (bluish violet), 4-amino-4'-chloroanthraquinone-2,1(N),1',2'(N)-benzacridone (blue-violet), 5'-chloro isomer (blue-violet), 4-amino-3',5'-dichloroanthraquinone-2,1(N),1',2'(N)-benzacridone (blue-violet), 5-aminoanthraquinone-2,1-(N),1',2'(N)-benzacridone (blue bordeaux), III (olive gray), 1-amino-5-(3-pyridylcarbonylamino)anthraquinone (bluish red-brown), and aminochrysoquinone (red-brown). I in o-Cl<sub>2</sub>C<sub>6</sub>H<sub>4</sub> and 1,5-diamino-2,6-anthraquinonedicarboxylic acid chloride give 1,5-diamino-N,N'-bis(5-benzamido-1-anthraquinonyl)-2,6-anthraquinonedicarboxamide (IV) which dyes cotton bluish red-brown. 1-Amino-4-benzamidoanthraquinone (V) in PhNO<sub>2</sub> and 1,5-diamino-2,6-anthraquinonedicarboxylic acid chloride gives a black dye on cotton. When the following amines replace V other colors on cotton are obtained (color in parenthesis): 1-amino-4-methoxyanthraquinone (bordeaux), 1-amino-4-anilinoanthraquinone (blue-violet),

4-aminoanthraquinone-2,1(N),1',2'(N)-benzacridone (blue-violet), 5-amino isomer (bluish bordeaux), and 4-amino-N-methyl-1,9-anthrapyridone (bordeaux). I in PhNO<sub>2</sub> and 1,5-dinitro-2,6-anthraquinonedicarboxylic acid chloride stirred for 2 hrs. at 150-60° and a stream of NH<sub>3</sub> introduced for 2 hrs. gives IV. I can be replaced by the following amines: 5-amino-1,9-pyrazoleanthrone (bordeaux), 4-amino-N-methyl-1,9-anthrapyridone (bluish bordeaux), aminodibenzanthrone (green-black), aminoisodibenzanthrone (navy blue), and aminopyranthrene (blackish brown). V in PhNO<sub>2</sub> and 1,8-diamino-2,7-anthraquinonedicarboxylic acid chloride give 1,8-diamino-N,N'-bis(4-benzamido-1-anthraquinonyl)-2,7-anthraquinonedicarboxamide which is blue-violet on cotton. V and 1,8-dinitro-2,7-anthraquinonedicarboxylic acid chloride give the 1,8-dinitro isomer also blue-violet on cotton. I 8.6, 1,5-diamino-2,6-anthraquinonedicarboxylic acid chloride 9.1, pyridine 2.5, and PhNO<sub>2</sub> 600 parts are stirred at 45-55° until all reactants have reacted, heated to 150°, 10 parts PhNH<sub>2</sub> added, and then stirred at 150-60° for 2 hrs. to give 1,5-diamino-N-(5-benzamido-1-anthraquinonyl)-N'-phenyl-2,6-anthraquinonedicarboxamide (bluish red-brown on cotton). I, 1,5-dinitro-2,6-anthraquinonedicarboxylic acid chloride, and aminopyrene give N-(5-benzamido-1-anthraquinonyl)-1,5-dinitro-N'-1-pyrenyl-2,6-anthraquinonedicarboxamide, bluish red-brown shades on cotton. 1,5-Dimethoxy-2,6-anthraquinonedicarboxylic acid chloride and I in o-Cl<sub>2</sub>C<sub>6</sub>H<sub>4</sub> give the 1,5-dimethoxy analog of II which dyes cotton yellow. 1-Amino-2,4-anthraquinonedicarboxylic acid and I give 1-amino-N,N'-bis(5-benzamido-1-anthraquinonyl)-2,4-anthraquinonedicarboxamide which dyes cotton yellow-red shades. 2,3-Diaminoanthraquinone in PhNO<sub>2</sub> is heated to 150-60°, 1,5-dinitro-2,6-anthraquinonedicarboxylic acid chloride added, and the mixture boiled 2 hrs. to give 2,6-bis(5,10-dioxo-1H-anthr[2,3]imidazol-2-yl)-1,5-dinitroanthraquinone which dyes cotton yellow-brown. 2-Amino-3-hydroxyanthraquinone and 1,5-diamino-2,6-anthraquinonedicarboxylic acid chloride give 1,5-diamino-2,6-bis(5,10-dioxoanthr[2,3]oxazol-2-yl)anthraquinone, violet on cotton. 1-Mercapto-2-aminoanthraquinone in Cl<sub>3</sub>C<sub>6</sub>H<sub>3</sub> and 2,6-anthraquinonedicarboxylic acid chloride give 2,6-bis(6,11-dioxoanthra[2,1]thiazol-2-yl)anthraquinone, yellow on cotton. Similarly, the 1,5-dinitro analog was prepared from 1,5-dinitro-2,6-anthraquinonedicarboxylic acid chloride. It dyes cotton violet-brown shades. 2-Amino-3-bromoanthraquinone and 1,5-diamino-2,6-anthraquinonedicarboxylic acid give 1,5-diamino-2,6-bis(5,10-dioxoanthr[2,3]thiazol-2-yl)anthraquinone, blue-violet on cotton. 1-Aminoanthraquinone and 1,5-diamino-4,8-dibromo-2,6-anthraquinonedicarboxylic acid give 1,5-diamino-4,8-dibromo-N,N'-di-1-anthraquinonyl-2,6-anthraquinonedicarboxamide, bordeaux on cotton. 1,5-Diamino-N,N'-bis(4-benzamido-1-anthraquinonyl)-2,6-anthraquinonedicarboxamide gives gray shades on cotton. The intermediate anthraquinonedicarboxylic acids were also prepared

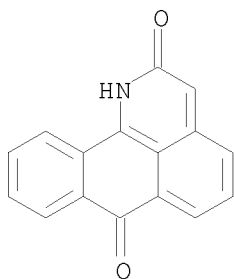
IT 31293-07-9, 7H-Dibenzo[de,h]quinoline-2,7(1H)dione  
(dyes)

RN 31293-07-9 CAPLUS

CN 1H-Dibenzo[de,h]quinoline-2,7-dione (CA INDEX NAME)



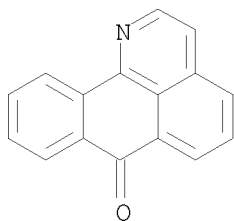
10/573,931



L6 ANSWER 92 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1937:18663 CAPLUS  
DOCUMENT NUMBER: 31:18663  
ORIGINAL REFERENCE NO.: 31:2616b-c  
TITLE: Leuco derivatives  
PATENT ASSIGNEE(S): I. G. Farbenindustrie AG  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	FR 803304		19360928	FR	19360312
AB	Leuco derivs. soluble in water, some of which are also leuco esters, of compds. derived from anthraquinone from the fact that they contain a ring in the 1,9-position are prepared by treating such compds. by means of SO <sub>3</sub> in the presence of a basic diluent, e. g., pyridine and a metal, e. g., Cu and as far as possible in the absence of moisture. Examples of compds. are benzanthrone, bz-1-, bz-2- and bz-3-azabenzanthrones, anthrapyrimidines, anthradipyrimidines, anthrapyrimidones, anthrapyridones, 1,9-pyrazoleanthrones, 1,9-indoleanthrones, 1,9-thiazoleanthrones, 1,9-selenazoleanthrones, arylamino, 1,9-anthrapyrimidines, acylaminoanthrapyridones and thiazole- and pyrazole-anthronecarboxylic amides.				
IT	65543-67-1, 7-Dibenzo[de,h]quinolin-7-one (derivs.)				
RN	65543-67-1 CAPLUS				
CN	7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)				



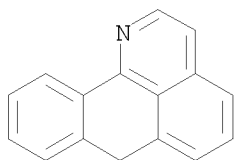
L6 ANSWER 93 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1937:18651 CAPLUS  
DOCUMENT NUMBER: 31:18651  
ORIGINAL REFERENCE NO.: 31:2614g-i,2615a

10/573,931

TITLE: Amides  
PATENT ASSIGNEE(S): I. G. Farbenindustrie AG  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

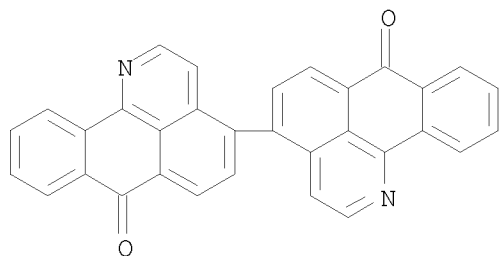
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	FR 803227		19360925	FR	00000000
AB	Amides of aza derivs. are prepared by heating polycyclic amino-aza derivs. containing only N and C as cyclic elements with esters free from aza groups derived from enolizable ketocarboxylic acids or with enolizable ketocarboxylic esters of aza compds., including cyclic amino derivs., containing at least 1 atmospheric of H capable of reaction fixed to N. Thus, 9-amino-4-azaphenanthrene (I) is heated with Et acetylacetate giving a product containing-NHCOCH <sub>2</sub> COCH <sub>3</sub> in the 9 position. 10-Amino-4-azaphenanthrene is heated with terephthaloyl-bis-acetic ester in C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub> , giving a product containing 2 azaphenanthrene radicals. Examples are also given of compds. prepared from monoamino-bz-3-aza-benzanthrone (by nitrating bz-3-aza-benzanthrone with HNO <sub>3</sub> in H <sub>2</sub> SO <sub>4</sub> and reducing with Na <sub>2</sub> S), monoamino-6,12-diazachrysene (by nitrating 6,12-diazachrysene and reducing), monoaminodiazatriphenylene (by treating I with glycerol and H <sub>2</sub> SO <sub>4</sub> , nitrating and reducing), 10-tetrazapyrene (from 2,4-diamino-1,9-anthrapyrimidine by means of formamide), monoamino-5,11-dimethyl-4,10-diazaperylene (by nitrating 5,11-dimethyl-4,10-diazaperylene with HNO <sub>3</sub> in H <sub>2</sub> SO <sub>4</sub> and reducing), 6-quinolinoylacetic ester (from quinoline-6-carboxylic ester by means of acetyethyl ester and NaOEt in boiling C <sub>6</sub> H <sub>6</sub> ), 2-amino-6,7-benzo-3,5,8,10-tetrazapyrene and others. The formulas of the compds. obtained are given.				
IT	200-26-0, 7-Dibenzo[de,h]quinoline (derivs.)				
RN	200-26-0 CAPLUS				
CN	7H-Dibenzo[de,h]quinoline (CA INDEX NAME)				



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

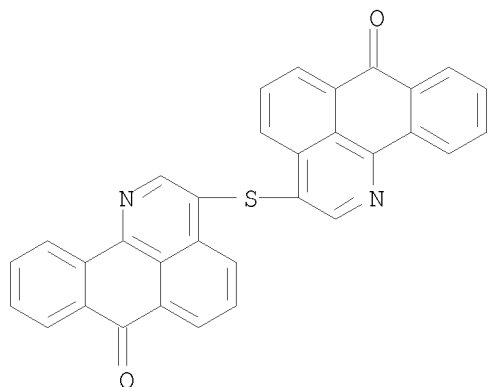
L6 ANSWER 94 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1936:65018 CAPLUS  
DOCUMENT NUMBER: 30:65018  
ORIGINAL REFERENCE NO.: 30:8640d-g  
TITLE: Anthrapyrimidonesulfonic acids  
INVENTOR(S): Weinand, Klaus  
PATENT ASSIGNEE(S): General Aniline Works  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	US 2056548		19361006	US 1932-642328	19321111
AB	<p>Anthrapyrimidonesulfonic acids which dye wool red to violet shades of good fastness are obtained by the reaction of an amide of carbonic acid, such as urethans (methyl- or ethyl-urethan, for example), urea, monoalkylureas, etc., upon a compound of the probable formula</p> <p>1-H<sub>2</sub>N-2-HO<sub>3</sub>S-4-RHNC<sub>6</sub>H(CO)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, where R means an alkyl group, such as a Me, Et, Pr, isopropyl, Bu group, or an aryl, aralkyl or hydroaryl group. All the nuclei of these compds. may be substituted by univalent substituents. Anthraquinone derivs. may be applied as starting materials being substituted in the anthraquinone nucleus by Cl or Br, alkyl groups (Me, Et, etc.), hydroxy groups, alkoxy groups, carboxylic acid groups, sulfonic acid groups, etc. Likewise the group R may be substituted in the most various manner, as by the substituents outlined above or by amino, acetamido, carboxylic acid amide, ester groups or thio ether groups, etc. The reaction is performed while heating the reaction components, advantageously to about 150-200° in the presence or absence of a suitable solvent. The best results are generally obtained by the use of a phenol as the solvent. Several examples with details of procedure are given.</p>				
IT	<p>122388-50-5P, [4,4'-Bi-7-dibenzo[de,h]quinoline]-7,7'-dione</p> <p>876475-83-1P, 7-Dibenzo[de, h]quinolin-7-one, 3,3'-thiobis-</p> <p>RL: PREP (Preparation)</p> <p>(preparation of)</p>				
RN	122388-50-5 CAPLUS				
CN	[4,4'-Bi-7H-dibenzo[de,h]quinoline]-7,7'-dione (CA INDEX NAME)				



RN 876475-83-1 CAPLUS

CN 7-Dibenzo[de, h]quinolin-7-one, 3,3'-thiobis- (3CI) (CA INDEX NAME)

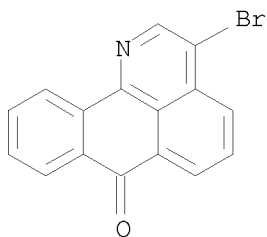


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L6 ANSWER 95 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

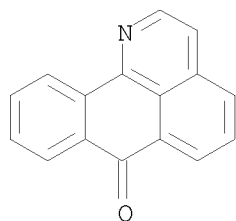
ACCESSION NUMBER: 1936:65017 CAPLUS  
DOCUMENT NUMBER: 30:65017  
ORIGINAL REFERENCE NO.: 30:8640b-d  
TITLE: Azabenzanthrone derivatives  
PATENT ASSIGNEE(S): I. G. Farbenindustrie AG  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	FR 46443		19360603	FR	
AB	Fr. 753,828 (C. A. 28, 1060.3). Organic compds. capable of being used for printing or dyeing are prepared by treating, with condensing agents having an alkaline reaction, azabenzanthrones having the peri positions capable of reacting and in which 1 CH group in the C <sub>5</sub> H <sub>6</sub> ring of the fundamental benzanthrone mol. is replaced by N. Examples are given of compds. prepared from Bz-1-hydroxy-Bz-2-azabenzanthrone (product dyes cotton fast blue-green shades), Bz-3-azabenzanthrone (I) (cf. Fr. 781,562, C. A. 29, 6249.8), mononitro-I, m. 273-4°, amino-I, m. 266-7°, pyridino-I, m. 226-8°, (which is transformed to dipyridino-di-I), 2,2'-di-(Bz-3-azabenzanthronyl) (dyes cotton pale yellow), dinitro-2,2'-di-I, anilido-I, Bz-1-bromo-I, m. 255-6°, (which is transformed to Bz-1, Bz-1'-di-(Bz-3-azabenzanthronyl) sulfide, m. 360°). Cf. C. A. 30, 1069.4.				
IT	57669-37-1P, 7-Dibenzo[de, h]quinolin-7-one, 3-bromo- 65543-67-1P, 7-Dibenzo[de, h]quinolin-7-one 122388-50-5P , [4,4'-Bi-7-dibenzo[de, h]quinoline]-7,7'-dione 876475-83-1P, 7-Dibenzo[de, h]quinolin-7-one, 3,3'-thiobis- RL: PREP (Preparation) (preparation of)				
RN	57669-37-1 CAPLUS				
CN	7H-Dibenzo[de, h]quinolin-7-one, 3-bromo- (CA INDEX NAME)				

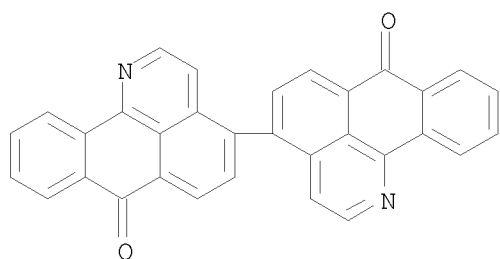


RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de, h]quinolin-7-one (CA INDEX NAME)

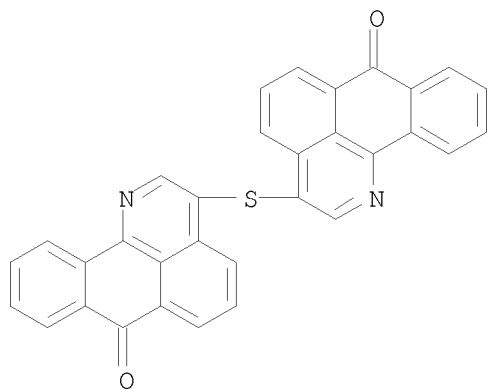
10/573,931



RN 122388-50-5 CAPLUS  
CN [4,4'-Bi-7H-dibenzo[de,h]quinoline]-7,7'-dione (CA INDEX NAME)



RN 876475-83-1 CAPLUS  
CN 7-Dibenzo[de, h]quinolin-7-one, 3,3'-thiobis- (3CI) (CA INDEX NAME)



L6 ANSWER 96 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1935:60910 CAPLUS  
DOCUMENT NUMBER: 29:60910  
ORIGINAL REFERENCE NO.: 29:8004c-g  
TITLE: Nitrogenous condensation products  
PATENT ASSIGNEE(S): I. G. Farbenindustrie A.-G.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 431790 19350716 GB 1934-1553 19340116

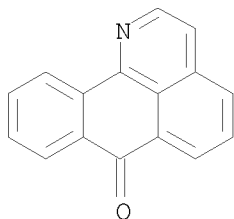
GI For diagram(s), see printed CA Issue.

AB Condensing agents, e. g., AlCl<sub>3</sub>, FeCl<sub>3</sub>, SbCl<sub>3</sub>, ZnCl<sub>2</sub>, are caused to react with dicarboxylic acid imides corresponding to the formula: CO.A.CO.N-|C|-|C|-B, where A and B are aromatic radicals, B having at least 1 free o-position; of the free linkages attached to the C atoms, at least 2 are satisfied by H and the others may also be thus satisfied, or they may form part of an isocyclic ring system of which the 2 C atoms are members, or they may be satisfied by substituents that permit the formation of a double linkage under the reaction conditions. A new ring closure appears to take place with formation of isoquinoline-carboxylic acid derivs. These may be treated with acid condensing agents to effect further ring closure. Among examples, (1) β-phenylethylphthalimide (from phthalic anhydride and β-phenylethylamine) is treated with NaAl chloride at 160° to give α-phenylisoquinoline-o'-carboxylic acid; treatment of this with fuming H<sub>2</sub>SO<sub>4</sub> gives Bz-3-azabenzanthrone, and (2) the imide from o,o'-diaminobiphenyl and phthalic anhydride is treated with AlCl<sub>3</sub> at 200° to give a product of formula Treatment of this with Na-Al chloride at 150° gives flavanthrone.

IT 65543-67-1P, 7-Dibenzo[de, h]quinolin-7-one  
RL: PREP (Preparation)  
(preparation of)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de, h]quinolin-7-one (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 97 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1935:47996 CAPLUS

DOCUMENT NUMBER: 29:47996

ORIGINAL REFERENCE NO.: 29:6249g-i,6250a

TITLE: Condensation products containing nitrogen

PATENT ASSIGNEE(S): I. G. Farbenindustrie AG

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

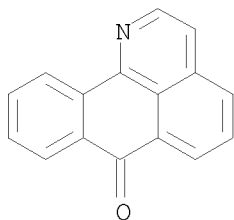
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 781562		19350518	FR	19341119

AB Interesting compds. are obtained by causing agents such as anhydrous AlCl<sub>3</sub> to act on a dicarboxylic acid imide containing the grouping :N.|C|.|C|.X (X is an aromatic radical with at least one ortho position free) and, if desired, submitting the products obtained to a fresh condensation. Examples are given of the preparation of α-phenylisoquinoline-o'-carboxylic acid, m. 285-7°, its picrate, m. 186° (from β-phenylethylphthalimide), α-phenylphenanthridine-o'-carboxylic

acid, m. 266-7°, Bz-3-azabenzanthrone (I), m. 186°, Bz-3-aza-Bz-1,2-benzobenzanthrone, m. 221°, a product from o,o'-diphthalimidobiphenyl (from o,o'-diaminobiphenyl and phthalic anhydride), 6- or 7-chloro-I, m. 178-86° (from  $\beta$ -phenylethyl-4-chlorophthalimide, m. 112-4°) and 4-chloro-I, m. 168-170° (from 1-phenyl-7-chloroisoquinoline-2'-carboxylic acid, m. 242-3° with decomposition).

IT 65543-67-1, 7-Dibenzo[de, h]quinolin-7-one  
(and derivs.)  
RN 65543-67-1 CAPLUS  
CN 7H-Dibenzo[de, h]quinolin-7-one (CA INDEX NAME)



L6 ANSWER 98 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1935:45022 CAPLUS  
DOCUMENT NUMBER: 29:45022  
ORIGINAL REFERENCE NO.: 29:5859f-i, 5860a  
TITLE: Heterocyclic nitrogen compounds  
INVENTOR(S): Ebel, Friedrich  
PATENT ASSIGNEE(S): I. G. Farbenindustrie AG  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	DE 614196		19350608	DE 1933-I48447	19331130
GI	For diagram(s), see printed CA Issue.				
AB	Dicarboxylic imides of the formula OC.A.CO.NC''C''B, where A is an aryl residue, B is an aryl residue with at least one free o-position and the free valencies of the C'' atoms are linked to H or to substituents which permit the formation of a double bond, are heated with a condensing agent of the AlCl <sub>3</sub> type in the presence or absence of an inert solvent. Condensation to an isoquinoline derivative first occurs, and the product may then undergo further condensation, either directly or after isolation. Thus, $\beta$ -phenylethylphthalimide (I), heated to 160° for 8 hrs. with a mixture of NaCl and anhydrous AlCl <sub>3</sub> , yields 1-phenylisoquinoline-2'-carboxylic acid (II), (m. 285-7°, picrate, m. 186°), which yields Bz-3-azabenzanthrone (III), m. 182-3°, when heated to 100° with fuming H <sub>2</sub> SO <sub>4</sub> . Other examples are given in which (1) the reaction product of phthalic anhydride (IV) and o-aminobiphenyl yields 9-(o-carboxyphenyl)phenanthridine, m. 266-7°, which yields Bz-1,2-benzo-III, m. 221°, on further condensation; (2) 2,2'-diphthalimidobiphenyl (from IV and 2,2'-diaminobiphenyl) yields a product believed to be V, unmelted at 300°, which yields flavanthrene by further condensation; (3) 4-chloro-I (m. 112-4° from chloro-IV and $\beta$ -phenylethylamine) yields a chloro-II, m. 230°, which in turn yields a chloro-III, m.				

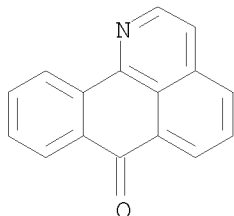
10/573,931

178-86°; (4) 4'-chloro-I (m. 140-2°, from IV and  $\beta$ -4-chlorophenylethylamine) yields 7-chloro-II, m. 242-3° (decomposition), from which a chloro-III, m. 168-70°, is obtained by further condensation.

IT 65543-67-1, 7-Dibenzo[de, h]quinolin-7-one  
(and derivs.)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L6 ANSWER 99 OF 99 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1935:45021 CAPLUS

DOCUMENT NUMBER: 29:45021

ORIGINAL REFERENCE NO.: 29:5859c-f

TITLE: Azabenzanthrones

PATENT ASSIGNEE(S): I. G. Farbenindustrie AG

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 780041		19350417	FR	

GI For diagram(s), see printed CA Issue.

AB Substitution and condensation products of azabenzanthrones are prepared by causing aldehydes or substances forming aldehydes to react in an aqueous alkaline

vat on azabenzanthrones of the formula in which X and Y are atoms of N and Z is CH, C-alkyl, C-aryl or COH, or X is CH or N, Y is N or CH and Z is CH or C-alkyl, or X is CH, Y is N-alkyl and Z is CO, or X is N, Y is NH or N-alkyl and Z is CO. Examples are given of the preparation of a methyl-Bz-1,Bz-3-di-benzyl-Bz-1, Bz-3-di-, 5-amino-2,6-dimethyl-Bz-1, Bz-3-di- (probably), methyl-Bz-3- (m. 208-9°), p-chlorobenzyl-Bz-1,Bz-3-di (m. 204-5°) and ethyl-Bz-1,Bz-3-diazabenzanthrone, m. 180°.

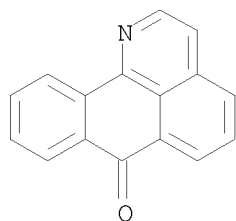
IT 65543-67-1, 7-Dibenzo[de, h]quinolin-7-one  
(and derivs.)

RN 65543-67-1 CAPLUS

CN 7H-Dibenzo[de,h]quinolin-7-one (CA INDEX NAME)



10/573,931



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(FILE 'HOME' ENTERED AT 12:50:16 ON 15 SEP 2009)

FILE 'REGISTRY' ENTERED AT 12:50:38 ON 15 SEP 2009

L1 STRUCTURE UPLOADED

L2 11 S L1

L3 STRUCTURE UPLOADED

L4 4 S L3

L5 177 S L3 FULL

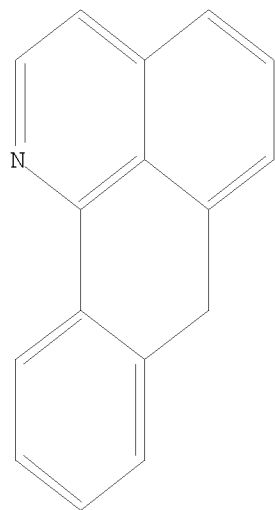
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L6 99 S L5

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L3 HAS NO ANSWERS

L3 STR



Structure attributes must be viewed using STN Express query preparation.

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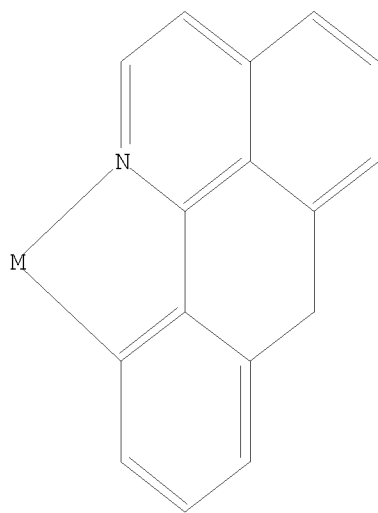
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L1                   STRUCTURE UPLOADED  
L2               11 S L1  
L3                   STRUCTURE UPLOADED  
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FILE 'CAPLUS' ENTERED AT 12:52:38 ON 15 SEP 2009  
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FILE 'REGISTRY' ENTERED AT 12:56:27 ON 15 SEP 2009  
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L9               0 S L7 FULL

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L7 HAS NO ANSWERS  
L7               STR



Structure attributes must be viewed using STN Express query preparation.

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